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William Braybrooke

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Gale (Thomas)

Certaine workes of chirurgerie.

London 1563-64

S.T.C. 11529

To the r[illegible]

ble the Lord ROBE[illegible]EY
Maister of the Quee[illegible] Mai[illegible]ies horse,
Knight of the noble order, one of the moste honorable priuie counsell, and his synguler good Lord and Master &c.

IF that be true (right honorable) which not onely Aristippus the Philosopher, but all other doe confesse, that those things are to be taught, practised and maintayned, whiche in a common weale are moste profitable & necessary: Then I maye boldly without iust cause of reprehension affirme that Physick is not the least, but one of the principall to be taught, practised, and had in honour and price. And because I wyll not further wade then my profession extendeth, I shall onely touche the thyrde parte therapeutick called with vs Chirurgerie. This parte whether for the antiquitie, as the moste auncient parte of Physicke: or for the necessitie and vtilitie of it I shoulde most commende, I can not easly iudge. But if we shall beleue Cornelius Celsus, or the olde writers, we muste of force confesse it to bee more auncient, then the other two. For before the tyme of the Troian warres, Chiron Centaurus, and Telyphus were of greate renowne, and

A.ij. fame,

[redacted] founde the arte to
cure [redacted] maligne vlcers (which
afterwarde according to the names of Chiron
and Telyphus) were called Chironia & Tely-
phea vlcera. In the tyme of the Troians mortal
warre, Podalirius and Machaon, being vnder
Agamemnon, did meruelously profite the Sou-
diours in curing their woundes, taking out of
Dartes and thyngs in them fixed, and applyng
healthful plaisters and medicines to the woun-
ded partes. What necessitie is of Chirurgerie, or
how much commoditie and profite by it ensueth,
let them answere, whiche are by the benefite of
this arte delyuered from payne, preserued from
losse & mutilation of members, & defended from
death it self: But here I holde backe my penne in
further commendynge Chirurgerie, least it
might iustly be answered of your Lordship to me
as was to the Sophiste, who resiting a whole
booke written in praise and honour of Hercules,
said, who dispiseth Hercules: So in like sort, your
Honour might answere, who dispiseth Chirur-
gerie: In deede my good Lorde, none dispiseth it
whiche are reasonable, and fewer enemies it
shoulde haue, if the Professours them selues (in
this our miserable tyme) were lesse gredy of mo-
ney, and more diligent to learne their arte. And
although the malice of other make me heare to
to holde my peace: yet if I may craue your Lord-
ships supportation in so vertuous an enterprise,

I shall

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I shall not cease to set oute some of the partes of Chirurgerie: that thereby the yong and studious Surgians may be made the abler both to know, and also to exercise their art. And therfore I haue made a booke intituled the Institution of a Chirurgion; then I shewe them a methodicall practise to cure wounds, fractures, and dislocations, in my booke called an Enchiridion of Chirurgerie. And for that I heare that many Surgians want knowledge of curing woundes made with gonshot (being nowe at Newhauen, vnder the right honourable L. Ambrose Earle of Warwicke, your honours moste deare brother) I for their ayde haue also compiled a treatise conteyning the parfite cure of gonshot. In which also I confute ỹ errours of diuers touchynge this question: whether the wounde made with gonshot is venomous: laste of all because the ponge men for want of tyme haue not iudgement sufficient, either to chuse out ỹ best & most conuenient medicines, or elis to compounde newe: I haue made myne Antidotarie, contayning the principall and secrete medicines vsed in Chirurgirie. In which I doe not only set oute suche as the best writers maketh mencion of, and I by longe experience haue found profitable: but also I do open diuers new, and to other yet vnknowen of my selfe inuented. Beseechynge moste humblye your Lordshyppe, to take these bookes (the first fruits of my labours) into your noble protection, and defende

bothe them and me the Authour from the malyce of busye Detractours. And I shall not onely haste other bookes, whiche I haue by me vnfinished, but also as my duty requireth, praye vnto the Almyghtye for your Lordshyppes longe lyfe, perfite healthe, and daylye increase in honoure. At my poore house in London, the sixteenth day of July.

1563.

Your honours moste humble and obedient seruaunt

Thomas Gale.
Chirurgian

W. Cunyngham Doctor in Phiſicke vnto his approued frende Thomas Gale, Maiſter in Chirurgerie, ſalutations.

WHy ceaſe you maiſter Gale? vvhat kepeth backe the publiſhing of your iiij. bookes, vvhich vvith ſo great trauaile, and perfite ſkyll you haue ſo happelye finiſhed? Doth feare of Sycophants and detracting tongues aſtoyne you? Or the miſtruſt of ſeuere iudgemēt at the learned, kepe back your honeſt attempt? Let theſe be no impediments I ſhall deſyre you, but baniſhe feare, and put from you miſtruſt. And as touching the maleuolent detractors, it either nedeth not, or helpeth not to ſtād of thē in dread. Apes vvil euer haue apiſhe properties, vvith mocking, movving, & grinning at euery perſō do vvhat you cā. I my ſelf haue somvvhat taſted of their curteſie, and therefore can better vtter their nature vnto you. They be ſuch as for the more part are ignoraūt thē ſelues, or if they beare the face of learning, yet be they arrogant & loiter in idlenes: & therfore to maintein their name, do carpe and reprehend other mens good labours, thinking thereby among the rude

multitude to get them more fame and honour. These haue not so muche hindered me vvith their serpentine tongues, as made me among the vvise and learned, of greater estimation. For although it be a common sayeng, yet is it moste true, VIRESCIT VVLNERE VIRTVS. But vvyll you eschevve their sting and poyson? Be idle then, loyter, regarde neyther your duetie to God, nor yet to your countrey. this must of force be your shift, vvhich hovv honest it is, be you the Iudge your self. But you vvil saye peraduenture, you are armed against this sort sufficiently not regarding their fors: and yet you dread the censure, and iudgement of the graue and learned. Surelye these you need least of all other to feare. For lyke as Apes can do nothing but apishely: so vvyll the learned do nothing but learnedly, discretlye, and vvith great aduisement. They consider by theyr ovvne trauailles, that it is no trifling, but great paynes to vvryte in any arte or science. And vvhen they reade other mens labours, and fynde perhappes some errours, they reiect not the vvorke, they deface not the authour, but think vvith them selues HOMINIS EST ERRARE. And if the errours be such as are thought

thought not tolerable, they vvill not curriſhely checke: but curteouſly admoniſhe, or els vvith theyr pen ſpedely amend it. Seing therfore that chattering layes may not preuayle againſt you: and that I haue (as I ſuppoſe) deliuered you of the miſtruſt you had in the learned: deferre no longer tyme, nor make no moore delayes. But ſince your countrey craue it, your approued frends earneſtly looke for it, and your duetye to both theſe require it: Kepe theſe bookes no lenger in darknes, but let them taſte of lyght. And as touching your requeſt in your letters ſent to me, to peruſe & read your copies, to alter, chaũge and adde as I ſhoulde thinke good, I haue ſome vvhat ſatisfied your expectation herein. And firſt I ſee your great diligence in reading your authours in Chirurgerie, as Brunus, Theodoricus, Rolandus, Launfrancus, Rogerus, Bartalpalia, Guido de Cauliaco VVilhelmus Ier. Brunſ ſvvike, Vigo and other. And do alſo conſider vvhat paine & great difficultie it vvas, to collect ſo perfite vvorkes, out of ſo imperfite authours. I ſpeake it not to their diſpraiſe, they vvere in the tyme of ignorauuce. But in my ſimple iudgement, if the followving of Galene, Auicene, Meſue, and others, of vvhome in your

bookes

bokes you make ſo often mentiō had not ſtayed you, and your long experience conducted you, you ſhould of force haue fallene into the huge pitte of cloudy & moſt groſſe errours. Amonge vvhich theſe follovving are not the greateſt, but yet not ſufferable in any caſe. For vvhat man is ſo mad knovvinge the nerues to be the cauſe of fealing, vvyll in vvoundes of the nerues bydde ſtitch the ſame? vvho is ſo bolde in great vvoūds in vvhich there is fixed ſplentes, ſhot, arrovve heades, and ſuch lyke, to geue the Pacient ſlepe drinkes as they call them? vvho is ſo rude in vvounds vvith gonſhot made thorovv a member, as to dravve an hearinge rope through the vvounde? Or vvhat ignoraunce appeareth in them all, in confounding the names of diſeaſes and miſcalling of ſimples? Doth not Guido the beſt of theſe authours rehearſed, cal œdema, vndimia? Eryſipelas, hiriſipela? ſcirrhus, ſcliros? and that vvhich I moſt meruayle at, that he calleth eſtiomenon (vvhich is herpes exedens) mortem et diſsipationem membri, and he interpreteth eſtiomenon, quaſi hominis hoſtem. Hovv farre from the matter it is, and hovv ridiculous an interpretation, let the learned iudge. I lothe to vvrite them, & repent the loſt tyme in reading them

them. But theſe for a taſt I offer, vvhereby gentle reader thou maiſt the better iudge & eſteme the labours of the author our contrymā. VVho for hys countryes ſake haue ſpared no tyme to trauaile, nor regarded his great expence. Yea & that vvhich is more, not his febled old corps vvhich is very vnapt to take ſo great a thing in hād. This for my part I dare bouldlye affyrme, that neuer in Engliſhe vvas ſo perfite vvorkes in Chirurgerie ſet oute: and I dought vvhether in any other tounge there be in all poyntes any vvork extant in Chirurgerie vvhich vvith theſe may be compared. For if vve ſhall loke firſt of his inſtitution in Chirurgerie, hovv pithylye plainely & compendiouſly doth he ſet out the hole body of the art, ſhovving the definitions, diuiſions & alſo apt names of tumors againſt nature, vvoundes, vlcers, fractures, diſlocations, and other like? Hovv diligently inſtructeth he the ſtudent in Chirurgery firſt in the theoricke and then in the practicke part? Then the ſtudent being thus trained vp & novv made apt to practiſe, he ſendeth him to his Enchiridion in vvhich is ſet out the method of curing vvoūds both in the ſimiler and inſtrumental parts, and alſo ſuch apte medicines as are for thē conueninent.

He.

He doth moreouer ſhevv the cure of ſuch accidents as do often chaunce to vvoundes. Laſt, he doth open the curing of fractures and diſlocations. Further more he hath finiſhed a treatiſe of curyng vvoundes made vvith gonſhot, in vvhich learnedly he doth cõfute the long receiued errour that hath ben mainteined for truth, hovve that ſuch vvoundes ſhuld be venemous. Hovv pleaſant this argument is, & alſo ꝓfitable, I rẽfer it to thy iudgemẽt (gentle reader) miſtruſting nothing, but vvhen you ſhall vvay his arguments, vvith theirs of the contrarye parte, you vvyll be vvholly of myne opinion. And yet this good Gale ſtayeth not here, nor is fatigate and vveried vvith theſe great paines: but hath alſo finiſhed a golden vvorke, vvhich he calleth his 'Antidotarie: in vvhiche, is comprehended the treaſures of Chirurgerie. There ſhal the Chirurgian hauing need of medicines vvhich do repell, attracte, reſolue, mollifie, ſuppurate, mundifie, incarnate, conglutinate, cicatrize (and vvhat is els requiſite to be vſed in the art) finde abundance, aſvvel of thoſe vvhich are called ſimple, as alſo of them vvhich becauſe they ſtand in the mixture of diuers ſimples, are named compoũd.

There

There ſhall he alſo vvith ſmale payne,& great gaine receyue in one houre,that vvhich in fourtie yeres trauaile vvith no ſmale expence, this Gale hath inuented and found out. Theſe bookes are novv perfitly finiſhed. He hath moreouer in his hands diuers other vvorks(as I heare) vnfiniſhed,as a booke intituled a compendious Method of healing tumours againſt nature:another,of the true and perfite cure of all kynde of vlcers. Alſo a nevve tranſlation of Guido de Cauliaco, vvith certaine briefe cõmentaries vpon the ſame.Beſides theſe:there be other,vvhoſe titles I do not knovve. Therefore that theſe maye alſo come to thy vſe,I ſhall require thee to ſhevve a gratefull heart,and thankfully receyue that, vvhiche he hathe vvith payne finiſhed, and is freely vvithout revvarde offered. But being delyghted vvith the argumentes of theſe bookes, I am digreſſed from anſvveryng the other part of your letter Maiſter Gale. You required me,that ſince I vvas ſo earneſt vvith you for the publiſhing of your bookes:that I vvould vvryte ſomevvhat in the prayſe & commendation of Chirurgerie. VVhiche thinge in myne opinion vvere ſuperfluous, vvhen that there can be no greater prayſe then is vvritten in your

your vvorkes.conſidering that through the benefit of this arte the vvoundid is made hole, the broken bones vnited, the Iointes being out of their naturall ſeat,reducid into their proper places,the hough and painful tumores expelled, & the virulent & maligne vlcers(vvhich doth eate and deuoure the members of man no leſſe then mothes do clothes,& fire that is put to it) are vanquiſhed and ouercom.Be not theſe great benefites?and ſuch as nedeth not the cõmendatiõ of other?But,yet if theſe vvil not ſatiſfie you, at the next ſetting out of other of your labours if this my vveake body may recouer ſtrength(I) vvil to my povver ſatiſfie your expectation. In the mean time:I bid you vvel to fare,& remẽber your vvhyte heares are maſſengers to admoniſh you that you muſt leaue this vvorld,& repaire to the heauenly Chirurgian Chriſt.And therefore haſt you for the time that remaineth, & finiſhe thoſe vvorkes vvhich you haue in your handes.

Againe fare you vvell: and loue your Cunyngham as you haue begonne.At my houſe in London the.28.of May

1563.

Though hatefull hate hath hindered muche,
The healthfull Gale that novv haue blovvne
Blaſtes of ſcience and connyng, ſuche
As Buſſards blynd hath yet not knovvne:
And though in clouds of ignoraunce
VVith them they vvold haue theirs to dvvel:
Yet in deſpite of fortunes chaunce,
Their errours groſſe he doth refell.
And ſkilfull Chirons learned lore
In this treatiſe doth playnly vvrite,
Geue thankes you gratfull harts therfore,
And Ignoraunce haue in deſpite.

W. Cunyngham.

Thomas Gale,

A Table to the fyrste Booke, called the Institution of a Chirurgean.

GVIDOES Diffinition of Chirurgerie. folio. 2. & 3.

Therapeuticon, is that part of the Arte, whiche cureth mannes bodye with medicines eyther inwarde or outwarde. folio. 2.

Galens diffinition of Chirurgerie. folio. 3.

Phisicke and Chirurgerie, are both one Arte, as it appereth by *Hypocrates*, and *Galen*. fol. 3.

The small estimation of Chirurgery, comes by the reason of the vnlearned emperiks, and rude sorte that vseth the Arte. fol. 4 & 11.

Celsus sayth, Chirurgerie is the Auncientest part of medicine. fol. 4.

No man can be a perfect Chirurgean except hee knowe the Anotomie of mannes bodye perfectly, w̄ all their temperatures. fol. 6. & 7.

The ende of Chirurgerie is to restore mans body to health. fol. 7.

What manner a man a Chirurgean should be. folio. 7.

A Chirurgean shoulde bee learned, & brought vp in experience, from hys youth. fol. 8.

Chirurgeans should follow ẏ warres to learn experiẽce, As *Macham*, *Podalirius* and *Achilles* dyd, which were excellent in the Arte. fol. 9.

The rablement of the vnlearned doth occupy the Arte to the ruine of the commō wealth,

to ỹ distruction of many, to ỹ slaunder of the noble Arte, & the great displeasure of GOD. folio. 10.

Chirurgerie wyll neuer recouer againe, except the Prince by lawes amende it. fol.10.

Science hath no greater enimie thã ignorance. folio. 10.

Guido requireth foure things in hym that is or should be a Chirurgean. fol.11.

Instruments both medicinal and instruments of metall parteining to the Arte. fol.12. 15.

Of a man wounded thorowe the breste with a swoorde and made hole. folio. 12.

A great errour of the Empricks to be noted. folio. 13.

Instrumentes common and proper. fol.13. 15.

A notable storye of one hurt wyth a Horse. folio. 14.

How a Chirurgeã shuld proceede in hys Arte. folio. 15.

A Chirurgian if hee will rightlye cure, muste know things natural, not naturall, & against nature. fol.16.

The two causes of sickenesse. fol.16.17.

Of three kindes of syckenesse, according to the partes of mannes bodye. fol.17.

The accidence of sickenesse. fol.17.

A Chirurgean being ignorant in the disease cãnot minister a right medicamẽt by knowledge. fol.18.

The principall diseases pertaining to ỹ Arte of Chirurgerie. fol.18.

The.iij. Instruments to cure these griefes wõ, as dyet, inward medicines & outwarde medici-

dicines. fol.3.12.13.
The differences betwixt a Tumer and an Apostume. fol.18.19.
Of the iiij. famous Tumers againste nature. folio. 20.
Tumers beyng myxed hath names accoꝛding to theire myxtures. folio. 20.
What pꝛofite commeth to the Chirurgean in knowledge of the mixture of these humours in tumers againſt nature. fol.21.
Of Sanguine tumers that are referred to *Phlegmon*. fo.21.22.23.24.
Of colericke tumours, which be of affinitie wꝫ *Erisipelas*. fol.24.25.26.
Of phlegmatike tumoꝛs that are referred to *Oedema*. fol.26.27.28.
Of Melancolyé tumers that are referred to *Scirrhus*. fol.28 29.30.
Timpanites and *Priapism*, *folio*. 31.
Vitiligo, Leuca, Albaras. *folio*. 32.
Exanthemata, Morbilli, & Variole. fol.32.
Parotides. fol.32.
Mentagra, Impetigo, Lepram, & Chamelontiasis. *folio*. 33.
Epiplocele, Enterocele, Enteroepiplocele, Bubonocele & Exomphalos. fol.33.
Podagra, Hiragra, Arthritis. fol.33.34.
The diffinition of woũdes. fol.34.
The differẽces of woũdes. fol.34.
What a ſimple wounde is. fol.36.
What a cõpound woũd is. folio.36.
What pꝛofite commeth to the Chirurgean in knowing the differences of woundes. folio. 36.
A man wounded in the bꝛayne, and made hole again.

againe. fol.37.
A Chirurgean cãnot applie a right medicine to a wounde, excepte he knowe the nature of the wounded part. folio. 37.
The diffinitiõ of an Vlcer. fol.37.
Whereof an Vlcer doth come. fol.38.
Of six kindes of Vlcers & wherof thei take their names. fol.38.39.40.
What *Sanies* or matter is, and howe many kindes there be, and their names. fol.39.
What a *Fistula* is, and of diuers kindes therof. fol.40.
Of certaine kindes of Vlcers named *Formicosum, caucrnosum, Teliphea, Chiroma* and *Phagedenicum*. fol.40.41.
What Vlcers be harde to be cured, and which be not. fol.41.
A diffinition of putrifaction, corotion, & digestion. fol.42.
The diffinition of a fracture, & how many kindes ther be. fol.42.43.
The differences of fractures & theire names. folio. 43.44.
The diffinition of dislocations, that is, bones out of ioint, and howe many kindes there be. folio. 44.45.
The principall differences of solution of vnitie or continuitie, that chaunces in mans bodye. fol.45.46.
The operation of a Chirurgean in mans bodye. fol.46.
A good Chirurgeã must obserue vj. things in his Arte. fol.46.47.
The three kindes of stytching wounds and of their commodities. folio. 47.48.49.
Of viij. manner of tents and of theire vse and cõmo-

cõmodities. fol.49.50.
The making of tentes, and whereof they bæ made. fol.50.
Of diuers kindes of bolsters and their vse and commoditie. fol.51.52.
Of diuers maner of ligatures and rollings wyth theire profyttes. folio. 52.53.
The conclusion of thys Boke in a fewe lines. folio. 53.54.55.
Of iiij. Notable tables, one for tumers against nature, another for woundes, and one for fractures, and the last for dislocations.

FINIS.

A Table for the. iiii. bokes called Enchiridion.

¶ First an Epistle to the Reader.

The fyrst Booke.

OF the exact & perfect curatiõ of woũdes, made in the simpler partes. fol.1.lib.1.
Of the cure of great and dæpe woundes, and of diuers kyndes of stitching. fol.1.lib.1.
Of woundes in vaines & Arteries. fol.3.lib.1.
Of woũdes in the Nerues and Synnowes. folio. 5.lib.1.
Of woundes in which are fired thornes, splẽtes, wood, arrowheds gunshot, or such lyke. folio. 7.lib.1.
Of dæpe and hydden woundes, which can-

not

not bee well perceyued folio.9. lib.1.
Of woundes in the bones. fol.10.lib.1.
Of curing greene & fresh woũdes wyth Balme folio.11. lib.1.

Finis Libri Primi.

The seconde Booke.

OF curing wounds in the instrumental partes folio.12.lib.2.
Of wounds in the head. folio.13. lib.2.
Of simple woundes in the Head, wythoute the hurte of the bone. folio.15. lib.2.
Of woundes in the head wyth breaking of the bone called *Cranium*. folio.16. lib.2.
Of woundes in the head with cutting of ỹ bone to the inward partes, wythoute losse of anye substance of the braine folio.17. lib.2.
Of wounds in the head cõtused without fracturing of *Cranium*. folio 17. lib.2.
Of the woundes in the head with contusiõn, & wher the bone is little fractured. fol.18.lib.2.
Of woundes in the eyes and face. fol.19.20.lib.2
Of wounds in the eares and lyppes. fol.21.lib.2.
Of wounds in the nose. folio.21. lib.2.
Of wounds in ỹ mouth. folio.22. lib.2.
Of wounds in the neck. folio.22. lib.2.
Of wounds in the brest. folio.24. lib.2
Of wounds in the belly. folio.25. lib.2.
Of wounds in the bladder, yard, and testicles. folio.28. lib.2.
Of woundes in the partes called *Artus*, containing the armes and legges,

leggcs. fol.29.lib.2
Of woundes comming thorowe byting of a mad dogge, stinging of a Snake, Adder, Scorpion, and suche like. fol.31.lib.2.
Of woũds in the thighs, knees, and legges. fol. 30. lib.2.

Finis Libri Secundi.

The thyrde Booke.

OF accidents ỹ chaunceth to wounds. folio. 33. lib.3.
Of doloure in woundes and swaging paine of the same. fol.33.lib.3.
Of Inflamation, and Apostumation. folio.34. lib. 3.
Of the remouing & taking away of distemperaunce in wounds. folio.36. lib.3.
Of Convulsion whyche happeneth in woũds. folio.37. lib.3.
Of the Palsey comming in a wound. folio.38. lib. 3.
Of *Syncope*, or sounding, thorowe cause of woũdes. folio.40.lib.3.
Of alienation of minde. comming by reasõ of a wound. fol.40.lib.3.

Finis Libri Tertij.

The .iiii. Boke of the *Enchiridion*, comprehending the maner of curing fractures and luxations.

OF the true and perfit cure of fractured bones. lib.4.folio.42.
Howe the partes of the bone that ar fractured are to be united togyther & put in their proper place. lib.4.fol.43.
Howe the broken bones united and ioyned togyther, may be kept & remayne in the same

figure, so that they may come to theire former estate. lib.4.fol.44.
Howe the partes of the bones that are broken, may be conglutenate & ioyned togither. lib.4. folio. 46.
How ỳ Accidents which happeneth to fractured bones, are to bæ remoued and put away. Liber.4. fol.47.
What a luxation or dislocation is, and of their differences. lib.4. folio. 49.
How the bone muste bæ put into hys naturall place againe, when it is oute of ioynte. lib.4. folio. 50.
How the member lurated & brought into hys naturall place, may be conserued and kept in ỳ same. lib.4.fol.50.
How to defende ỳ member from accidents, and to put thē awaye if they happen. lib.4.fol.51.
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FINIS.

THus We ende the fyrst Tome of our workes, with the Addition of two Treatises, one of Tumers against Nature, another of Vlcers. For the which the name of God be praysed. &c.

Imprinted and finished, by Henry Denham, dwelling in VVhitecrosse strete, for Thomas Gale *Chirurgean.*

Anno Domini. 1564.
Mensis Augusti. 29.

Cum Priuilegio Regiæ Maiestatis.

These Bookes are to be solde by the Printer aboue named.

Tho. Gale Chirurgian,

to the Frindly readers Salutations in Christ Iesus, &c.

IT was not without great skil & knowledge, that the wise & lerned Grecias old cal man by the name of Microcosmos, which is as much to say with vs, as the lesser worlde. for the greater worlde (in Greke, cosmos) doeth consist of the heauenly, & elementarie region. And the lesser worlde (being man) doth vnder God, reule & gouerne what so euer is them conteyned. & applieth them to his vse and profite. & if we shal begin firste, with that most meruaylous hande worke of God, I meane the beautiful heauenes, so wōderfully adorned & decked with most comfortable lightes: what els shall we iudge, but that he ruleth them, whan being placed so farre frō them distant, doth diligētly & truly note & obserue, not only ther motions, ascentions, discentions, progressions, retrogradations, stations, deuiations, declinations, coniunctions, & sondry configurations: but also marketh what mutations, altercations, & effectes, they cause in the elementarie region, wherby he is taught to take that which may be to his profit & gayne: & eschew, or els mitigate and equally beare, what is therto cōtrary. and here of it came to passe, that the great Astrolagian, Claudius Ptolomeus durst boldly affirme that

The wise, by Prudence and good skyll.
Shall rule the sterres to serue his will.

Yea, & the wyse Philosophers and Poetes, which did deapely, and with no small iudgement beholde the figure and shape of man: howe he only among all liuyng creatures loked vpwarde to the heauens, they dyd constantly affirme, that only for that cause he had gyuen to him suche countenaunce, and that right eloquently the Poete sitteth out in theis fewe verses.

Pronaque cum spectant animalia cętera quęque
Os homini sublime dedit, cęlúmq3 videre
Iussit, & erectos ad Sydera tollere vultus.

Where all thynges that doe breath,
Doe on th'earth ther lookes cast:
God whan man he dyd make
gaue him so greate a grace:
On Sonne, Moone, and eke Sterrys.
That he his eyes might fast:
Also to veiw the skye.
And that with vpright face.

And here by the way I gather, that this countenance was not gyuen man only to gape, gase, stare, & toote an the heauens: but wyselye to consider the wounderful forme & frame herof, how incessantly it forneth, & moueth abought the center of the yearth. & that the heauens are as freshe & lustie at this present to fulfil ther course, as at ther first creation. and that he by considerynge them, might confesse that ther is a God, who ruleth them, & hath made them to his vse & profit. but let that pass & cume we vnto

the

the elementarie region. What thing is ther in conteyned which he gouerneth not, and taketh of them profit. the wyndes he gathereth in a smal cõpasse, & by the force of them, he romneth & walketh on the bough seas as on the lande. The fysches in the greates depes he bringeth to his handes. the foules of the ayre for al ther swyftnes of wynges, he getteth for his pray. Yea he subdueth one foule, & teacheth it to bringe diuers others vnto hym. Example of the hauke, & the partrich. suche is the diuine wisdome, & greate poure giuen to this litle worlde, man. what doeth he not subdue the most stronge & ferse beastes, & ouer runne those that are most swyfte: the horse beinge a corageous & proud beast, for all his strenth, swyftnes, and force in his houys, doth he not bridle and tame, and rydeth on hym like an Emperour & gouernour: The mightye Lyon for all his strength, is made captiue & subiecte. the hart, and hare, for all ther swyftnes, he ouertaketh. and to conclude, what beaste is it whom man hath not, or can not bryng in subiection: What saye you to the venemous serpentes, scorpions, toades, and such as are poyson to humaine nature, whiche man doth not onely vanquisshe: but of them maketh healthful medicines to expell greuous infirmities. I omit for breuitie, the innumerable trees, plantes, frutes, herbes, rotes, gummes stowes, mettalls, and earthes, whose secret natures he hath founde out, whose vertuss he hath tried, & whose substance he doeth rightly vse for his commoditie & welth. What artes hath he inuented, what scienciens founde, and misteries

set out: so that of right as I suppose, I may cal man microcosmos, and the lesser worlde. But me thinke I heare one demaunde, to what ende is this longe tale of man set out. Forsoth that you may triply and duely consider what a noble and excellent substance man is of, who is the subiecte and matter on which the Phisician and Chirurgian doe worke. but as touchynge the Phisician I haue nothynge to saye, and therfore of the Chirurgian I purpose somwhat to vtter, both to warne this microcosmos man, of those who vnder the name of Chirurgians be nothynge els but open murtherers, and also to deface theis rude Emperikes, and to pricke forwarde the righte Chirurgian. and that you maye the easelier conceyue that which I go aboughte, it behoueth you to knowe, that chirurgery is moste harde and difficultye to attayne vnto, and is also a longe arte, and requireth longe tyme in lernynge, and also exercisyng: as both the princes of Phisicke Hippocrates & Galen do testifie: and all wyse men doe also confesse. for howe can it be but difficil and longe, whan the Chirurgian must consider so many diuers temperatures of men, and hyd and secret effectes, and properties of nature in them grafted. Wherefore doeth one loue porke, an other hateth it as poyson. some abhorre chese, some frute, & other some wyne: Wherfore doeth one concocte and digest meat most harde to concocte: an other is not able wyth out longe tyme to digest the easiest and lightest meates: Wherfore is one by drinkinge of wyne made loose bodied, and soluble; wher an other man can not

haue

haue that benefite, no not with strōg & vehement la-
ratiues: furthermore, Chirurgirie for the greater
part consisteth in right vse of profitable experimēts:
whiche require both longe tyme in the findynge of
them out, & also in obteynyng ther right vse. & lesse
you may obiecte that one may receyue experiments
of other that are lerned, & so easely obteyne the arte:
I must say that the right vse can not so easely be ob-
teyned. for to that, is required that both the Chirur-
gian hymselfe be lerned & wyse: and furthermore
that he seeth other Chirurgians of longe experience
worke, & put those experimēted medicines in other
right vse. This also maketh the arte longer, for that
ther spring new infirmities in our dayes vnknowen
to them before our time. What say you to Chamæ-
leontiasis, vulgarly named morbus gallicus? Who
euer haue written of the nature cause, & accidentes
of it: which is the occasion that so many miserablye
haue dyed, & daily perishe of it: & those that haue re-
ceiued helth, haue bene so small a numbre. againe
the art is longer to vs Englishe men, then to other,
whan as we are first constrayned to learne the latine
tongue before we can attayne the myndes of those
who wright of Chirurgirye. there be diuers other
thinges which also maketh the arte longe: which for
that I wyl not be tedious, I comit to thy discretion
to consider. Nowe this I conclude, if the subiecte of
Chirurgirye be so noble and excellent a creature:
the arte must also be noble & excellent, whiche tea-
cheth to worke on it. if the art be excellent, then it

folowthe

foloweth that it is difficult and hard. again, if it be longe: then it requireth a lōg tyme in the obteyning therof, if then that the subiecte of Chirurgiry be so noble, the art so excellent & difficill: & so long a time required in the gettynge therof: thou mayst easelye iudge that the rable of theis rude Emperikes (and drosse of the yearth whiche whan they can not otherwyse lyue choppe strayst ways in to the arte of Chirurgirye) be no Chirurgians: but manquillers, murtherers, and robbers of the people: suche are some hosiers, taylours, fletchers, mynstrelles, souters, horsheches, Juglers, wiches, sorceres, baudes, & a rable of that secte: which wolde by lawes be driuen from so diuine an art, the exercise of whiche for want of knowledge, bringeth some tyme losse of member, some tyme of lyfe, and some time both of lymme & life. Wherfore I do admonishe the frendly reader, what so euer thou arte, that hast nede of Chirurgirye, not to trust euery runagate, & him that called him selfe a Chirurgian: but consider whether he be lerned or not, demaunde of him some questiōs of his art (which if thou canst not do of thy selfe, thou shall finde diuers in my booke intitled, the Institution of a Chirurgian) whiche if he answereth them thou mayst be the boulder to commit thy selfe to to hym. otherwyse trust hym not, though he sayth he haue cured an hundred of that infirmitie. for experimentū fallax, experimētes are deceyuable. now seing by theis fewe liues, you may coniecture what a diuine and excellent art Chirurgirye is, and how thou mayst discerne and know the right Chirurgian

from

from the murtherynge and burtterly Emperike, I thinke it good in fewe wordes to set out vnto thee, what caused me to publishe theis fewe and symple labours of mine. Ther ware two thynges whiche moued and styred me hereto (louyng reader) the first was the discharge of my talent towarde God, and dutie to my natiue countrye: the second was to helpe my Brethren Chirurgians who althoughe they are desirous to attayne ther arte, yet both because it is so long, and not set out in our vsuall language, they are frustrat of ther desire, and the comon welth vnfurnished of men of this profession. wherfore musinge longe with my selfe, what parte of the art I might best set out, as most necessary for them, and most spedely to attayne the art: I founde none more conuenient then first to wright an institution of a Chirurgian, in which he myght lerne ỳ theorike parte and principles of the art: which whan as I had finished and brought to an ende: I dyd not thinke good ther to stay, but thought also it a necessarye thing to compile fourme tretise, comprehending the practise of some partes of the art. Wherfore I dyd set penne to paper, & wrotte an Enchiridion of Chirurgirye, contaynyng the methode and way to cure woundes, both in similer and instrumental partes, and eke fractures and luxations, wyth a newe way, of stanchyng flux of blod with out cauterizen yrons by a pouder diuisyd by maister Perpoint & me, whã as any membre is taken of from the body, & is now in the hospitalles of London vsed to the great cõfort of the sicke people, and sauegarde of ther liues, wher

comonly

comonly before they perished and decayde. and whil I thought heare to haue stayed, behoulde warres folowed, and controuersie arose wether the cure of woundes made with comon gonnepouder & shotte ware like to inuenomed woundes, or els woundes contused, whiche controuertye to decyde I thought for the tyme necessarye. and haue compiled a litle volume confutynge the aduersaries opinions, and establishynge myne owne, and yet further wayeng what want the Chirurgians had of good and approued medicines belongynge to ther arte, I dyd take out of the best authours, suche as might serue herein ther necessarie vse, addinge therto suche experte medicines as I had both inuented and proued. and this booke I haue called my Antidotarie. all whiche. iiij. bookes, I shall require thee hartelye to take in so good part, as I doe offer wyth free harte, and loue to profit, both the & other. and heare, I may not forget maister Doctour Cunnyngham, who was no smal helpe to me in diuising the argumēts, & perusynge the copies written, whose trauelles in this behalfe I cōmende to thy thākful minde louing reader. ther now reasteth no more, but to committe my woorkes with my selfe vnto thy Iudgement prayeng thee wher the errours haue escaped, both to pardon the same, & also to gyue me warnynge of them. thus doinge thou shalt encorage me duringe lyfe accordynge to my small knowledge, to trauaile in this my vocation. Fare hartelye well louynge Reader, at my poore house in London, the. xij. day of September. 1563.

An Institution

of a Chirurgian, conteynynge the sure Groundes and Principles of Chirurgerie most necessarie and mete for all those that will attaine the arte perfectly: for whose cause it is compiled by Thomas Gale, maister in Chirurgerie.

Theorica pars.

PRINTED AT LONdon by Rouland Hall, for Thomas Gale.

1563.

1563.
THOMAS GALVS CHIRVRGVS
ANGLVS ÆTATIS SVÆ 56

Thomas Gale Chirurgian vnto those that desyre the knowledge of Chirurgerye gretinge. &c.

TWo thynges theyr are (sore to be lamented) whiche chiefely haue brought the most noble and auncient arte of Chirurgerie to extreme decaye and ruine: one is that euery person good and badde, learned and vnlearned, Chirurgian or no Chirurgian, doe wythout penaltie and correction of lawes frelye take on them the practise of Chirurgerie. the other thyng is, that the Chirurgians them selues (I speake for the greater number) are vnworthye professours. The fyrste we can not redresse, but lament: the second somewhat we both can and wyll labour to amende. For the greatest number of Chirurgians (I meane those that are their vnto

laufully called) are so rude and vnskil-full in their art, because they haue no methode, no exact waie, or yet order in learnynge the grounds & principles of Chirurgery, eyther set oute of any authour whom they are able to vnderstande: or elles taughte of their maisters and tutours, of whom they should or instructed. So that they are confused in their studies, and make rather a rude chaos then a perfecte arte of Chirurgerye. For nowe it is come to thys poynte, that if they can get thys recepte, and that recepte as they terme it, they thynke they nede no futher stodye. So that the more receptes he hath, the greater Chirurgian he thinketh hym selfe to be: such ignorance now raygnes, that recepts beareth the bell: theorike of Chirurgerye is quit forsaken, or not regarded. For yf you shall come to one of these greate maysters wyth their receptes, and aske hym what Chirurgery is, what ys the subiecte to Chirurgery

rurgerye, what is the ende of Chirurgerye, howe manye partes doth Chirurgerye consyste on: they are constrayned to be silent and say muu, or yf anye be impudent and speake, he gyueth but a ridiculous aunswere. & yet we wyl thynke a man not mete to be called an artiste or workman, whiche cannot tell (beynge required) what hys art is which he professeth: although he hathe neuer so manye instrumentes and toales. For the art consysteth in the righte vse of the instrumentes, and not onely in hauinge them. Whiche vse is gotten fyrst by learnyng the arte, and then by exercisynge the same. And to learne the art, is required a Methode and Order: for wyth oute it, you shall neuer exactelye attayne the same. Wherefore we nowe accordynge to oure smalle poure and symple knoweledge, wayinge the prominysses, and hartelye wisshynge the redresse of the same: haue sette oute the Theorike part of Chirurgrye

rurgye in thys presente volume conteynynge the principles and sure groundes of the arte, in suche order and methode as shalbe moste conuenient for the yonge student. And yf I haue not here in performed that whyche I desyred: yet I haue gyuen occation to those that are better learned, to sette oute a more perfytte worke of thys argumente. And I thoughte good to make it Dialogue wyse for that it is moste apte to teache and instructe by. For by thys meanes, all doubtes maye be bothe demaunded, & also aunswered fullye. And for because it is the fyrste Booke that one muste reade whyche wyll learne the arte, I haue named it the Institution of a Chirurgian, in whyche he shall see not onelye what hys arte is, but also what maner a person he muste be hym selfe: and what conditions are in hym required. further more what instrumentes he muste be garnished wyth, and howe he shall in tyme

and

and place vse them ryghtelye to the
profyte of the paciente, honour of
thys arte, and hys owne worshippe.
Wherefore their resteth no more, but
that you take these my labours thā-
fully, and reade them diligently. Farre
hartelye well: and forgette not to
spende thy tyme to the profyte
of the common weale. At
my house in London the
20. daye of Maye.

AN INSTITVTION OF A CHIRVRGIAN, CONTEYNING The sure Groundes and Principles of Chirurgiry, by Thomas Gale. &c.

The Interloquutors.

Io. Yates, Tho. Gale. Io. Feild. Chirurgians.

Iohn Yates.

PHœbus who chasith awaye the darke and vnconfortable night: castinge his goldyne beames on my face, wouldе not sofer me to take anye longer slepe: but said awake for shame, & beholde the handy worke of our sister Flora, how she hath reuested the earth wyth mooste beautyfull colours, meruayloustye set in trees, plantes, herbes, and floures: in so muche that the old and wetheryd cote of wynter, is quite done away, and put out of remembrance, at whiche wordes of Phebus, my hart quickened in me, and all desire of slepe was eftsones forgotten. Wherfore I am now cumme into this beautiful mydowe to recreate my selfe, and gather some of those pleasant herbes, and floures, whiche here doe growe. But let me see: me thinke I perceyue. ij. men walkinge to gether and reasonynge also very earnestlye. I wyll approche neerer vnto them, perchaunce they be of my acquaintaunce: Suerly I shoulde knowe them, I am deceyued yf the

yf the one be not my frende maister Gale, and the other maister Feilde. It is so in deade. Wherfore I will go and salute them. God that hath brought vs together in to this place, make this daye prosperous and fortunate vnto you both.

Tho. Gale, Brother Yates the same we wishe vnto you, & you are welcome into our cõpany.

Iohn Feilde. This faire and pleasant morninge, will not suffer maister Yates to kepe his bed: but leuynge the citye, he roameth the feildes, to espie oute some strange herbes, vnto hym yet vnknowen.

Iohn Yates. I muste of force confesse, that you doe hitte the nayle on the heade: but sence my happe is so fortunate, as to mete wyth you both, and that nowe in this pleasant morninge: I wolde leaue of my former determinyd purpose, and require you to enter into some talke of Chirurgerye. For sens you both ware brought vppe vnder Maister Ferris (beinge nowe Sergeant Cherurgian, vnto the Quenes Maiestie) one at whome bothe for his knowledge, & experience, you dyd not a lytle profite: and also that you haue had longe practise your selues: you shoulde meruaylously pleasure me, and profit other. for so may it come to passe, that it myghte be in the place of an Institution vnto those that shall here after desire the knowledge

ledge of Chirurgerye.

Tho. Gale. Your requeſt is honeſt, and reaſo-ble: and therfore not to be denyed.

Iohn Feild. We ware abought the like thinge when as you ſaluted vs, wherfore renewyng our firſt talke, we will accompliſhe your deſire.

Iohn Yates, I haue redde manye authour in Chirurgerie, and yet finde ſmall profit by them.

Thomas Gale. What be the names of youre authours.

Iohn Yates. Theodoricus, Brunus, Lanfrancus, Rolandus, Rogerus, Bartilpalia, Vvilhelmus, Guido, Brunſvvicke, and Vigo.

Iohn Feilde. What parte of Hippocrates, Galene, Auicenne, Paulus, Rhaſis, Albucaſis, and Haliabbas, haue you rede? theis be of greter authoritie, and of whom you ſhal learne ſounde doctrine.

Iohn Yates. Wyth theis I haue not ben much acquaynted.

Tho. Gale. Well, then the nexte waye is that you do put oute ſuche queſtions as you wolde haue anſwered, and ſtande in doute: and alſo anſwere to that which ſhalbe demaunded.

Iohn Yates. right gladly, for ther is no waye by whyche I ſhall ſo muche, and in ſo ſhorte a tyme profit.

Iohn Feilde. Truth it is, wherfore let vs begin with

gin wyth out further detractynge of tyme.

Tho. Gale. Then seyng our talke shal wholly be the institution of a Chirurgian, it ware mete, and conuenient first to vnderstande what Chirurgery is. Wherfore answere me I pray you, what call you Chirurgirie?

Iohn Yates. Guido de Cauliaco (in his boke which he calleth his Collectorie) defineth it in this sorte. Chirurgirie is a parte of terapentike helinge men by insition, vstion, & articulation.

Iohn Feilde. Those wordes, are taken out of a booke ascribyd to Galen, beinge intituled Introductio, seu Medicus. But he should not haue called it corruptly terapenticke, but therapeuticke. For Therapeuticòn is that part of phisicke, which curyth. this part consisteth eyther in curyng by conuenient diet: eyther by medicyne: or els by outwarde vse of the hãde. there Galen (or he that was author of the booke aboue said) affirmeth howe ỹ which healith by the hande, is a portion of the curatiue parte. this helpeth men by incisions, vstions, and reducinge the bones into their naturall seate.

Tho. Gale. Yet this is no perfect definitiõ of Chirurgerie, because the definition doth not contayne in it so muche, as to Chirurgerie is required.

Iohn Yates. Then you shall here an other de-

finition

finition out of Guido. He saith that Chirurgery is sayde of this greke worde Ciros, whiche signifieth an hand: and Gyos that is worke, or operation: as who sholde saye, Chirurgerie is the science of worckynge by the hande: how like you this definition?

Iohn Feilde. More then the other, both for ỹ it is no definition, but only the signification of the name: and also for that Ciros and Gyos, be no greke wordes, which shoulde showe, that eyther Guido was no grecian, or els that his workes are corruptyd.

Tho. Gale. Truth it is, for Chirurgia, is deriuid Apò tês cheirós caì toû érgou, but both the description of Chirurgerie, & also the Etymologie & signification of the name, doth right wel showe what Chirurgerye is; although it be no answere to our demaunde.

Iohn Yates. Then I pray you let me learne at your handes, what ys the trew and essentiall definition of Chirurgerye.

Tho. Gale. Right gladly. Galene in his boke of medicinall definitions, sayth that Chirurgerye is the quicke and redy motion of stedfast handes with experience: or an artificiall action in phisicke, done by the handes: wherby is obteyned the desiered scope. So that you may by theis wordes hether to aledgyd out of the introduction, and the booke of medicinall defini-

tions,

tions, forme a definition on his wyse. Chirurgery is the arte, whiche curyth those infirmities, & grefes of mans body, whiche are to be done by right vse, and application of the hande.

Iohn Feilde. In this definition is to be notyd, that Chirurgery doth not cure al greifes which require helpe of the hande: but onlye suche as are curable. Also it is to be vnderstande, though in the definition is put no other wayes of curynge those grefes, but by the right vse of the hande, yet Chirurgerie hath nede both of that parte whiche curith by dyet, and of that whiche helpeth by medycine. As is moost euident & clere in great inflammations, & also in those bodyes in whiche Cacochimia (that is to say yll Juse) is found, where the humours are defilyd and corruptyd.

Iohn Yates. Then it shold seme that Chirurgery is so ioyned to the other two partes, that it can not be well seperatyd from them: although they be now two distincte artes.

Tho. Gale. Truth it is, and in the begynnynge, phisicke and Chirurgery ware both one: & one man exercised both, for so did the princes of phisicke Hippocrates and Galene.

Iohn Yates. Then I perceyue that Chirurgerie is not so base, as it is taken for: and that it is of great antiquitie, beinge the moost auncient

tient parte of phisicke, and was exercisyd of Emperours, Kynges, Philosophers, and Phisicians.

John Feilde. The baseness of it, and eke smal estimation, comyth of the vnlearnid and rude Empirikes: who takyth on them the office of a Chirurgian, whan as they knowe nothynge lesse, then what Chirurgery meaneth. but as touching the antiquitie of Chirurgery, you shal not beleaue vs, but regarde the wordes of Cornelius Celsus (whiche are written in his. vij. booke) who sayth. Hæc pars cum sit vetustissima, magis tamen ab illo parente omnis Medicinæ Hippocrate, quam à prioribus, exculta est. This part of Phisicke (saith Celsus beinge the most auncient, yet it was more increasyd by Hippocrates (the father of all Phisicke) then of al those that ware before his time. Here you maye perceyue, that it is the most auncient and eldyst part.

Tho. Gale. The same Celsus also setteth oute certayne noble persons who dayly more, and more, did augment the art, for it did florishe in AEgypte by reason that Philoxenus dyd exercise it. Also Gorgias, Sostratus, Hieron, the two Apollonij, & Hammonius of Alexander. At Rome also Tryphon and Euelpistus, and Neges ware ryght excellent in Chirurgerie:

rurgerie: and by there lerned workes, dyd cause the arte not a litle to florishe. Podalirius, and Machaon (the sonnes of AEsculapius) being vvith Agamemnon, in the Troian warres, cured the woundyd Soudiours; as Homere the Greke Poet affirmeth.

Iohn Feild. All theis as you say ware right excellent in Chirurgery: and famous also, chefely for curing of woundes, and vlcers. In like sorte, was Chiron Centaurus, and Achilles, wyth diuers other.

Iohn Yates. Seynge that I haue learned that Chirurgery is the. iij. parte therapeutike, what Chirurgiry also is, of the antiquitie, & authors of the same: I wold gladly vnderstande of howe many partes it doeth consist & stande on.

Tho. Gale. It hath. ij. partes: the one called Theorike, conteynynge the speculation and knowledge, the other Practike, whiche is the manuall operation and exercise. The theorike parte, is obteyned by demonstration, and exacte knowledge of the principles of the arte, and this, both doth inuente, and teache what is to be done, whiche way, and also by what meanes. This parte a man maye perfectlye knowe, although he neuer doeth exercise any portion of the practike. the practicke parte is founde oute and inuentyd by reason and experience, and it

doeth

doeth rightly, and redelye exercise the same thinges, that the Theorike hath inuentyd. This parte no man can exactly obtaine, excepte that both he doeth se other whiche are skylfull in the arte to worke: and also diligentlye exerciseth it him selfe euer bearing firmely in minde, both what he haue sene of other men brought to good ende, and what he haue also done hym selfe.

Iohn Yates. Then seinge that you haue vttered vnto me howe manye partes of Chirurgirye ther are: I pray you first beginne wyth the Theorike parte of it, and let me vnderstande exactlye what it is, and that beinge finishyd, proceede to the practicke.

Iohn Feild. To set out the theorike it wyll by profitable: but as touchyng the practicke it ware both superfluous & vayne, seyng ỹ the perfite curing of apostemes, & tumours, are set out in the booke of tumoures against nature, also the true exacte cure of vlcers, is at large opened in another worke, whose title is a perfecte and exacte methode of curynge vlcers. Furthermore the practise of healing wounds both in similer & instrumentall partes, also of fractures, and luxations: you shall fynde in his Enchiridion of Chirurgerie. And as touching wounds made wyth the common gonpouder and pellet, you shall receyue the trew and methodicall cure,

in a tretise beryng name of curyng woundes made wyth gonshotte, in whiche treatise is set out, and also manifestlye confuteted, the grose and fonde errours not onlye of Iohn Vigo, Alfonce Ferrius, and Hier. Brunvvicke (which make the shote venemous, and consequentlye the wounde therewyth made, and so the cure to be lyke as is in venemous woundes:) but also by demõstration he ouertroweth al those, that be of that opinion. So that for the practicke parte, I do not se what is more to be desired: excepte it ware some treatise, in whiche might be comprehended the arte of phlebotomie or letting of blode, and also of scarification, and boring whiche I hope (God grauntyng hym lyfe) he wyll hereafter set out.

John Yates. Theis be a numbre of worthye bookes, whiche do contayne the practise of so worthye an arte. God graunt you longe lyfe maister Gale, to accomplishe that you haue yet behinde.

Tho. Gale. Although some perchaunce more busie then lerned: and yet more lerned, then discrete and modeste, and yet parhappes more destrete & modest, then a fauour of those that trauayleth for the profit, and vtilitie of other: haue not a litle lifted vp the groyne, & bent the brow, & with manifest wordes of contumelie rewarded me: yet the loue of my countrye, and desire to profit

to profyt those of my profession: shall euer be a sufficient spurre, to prouoke me to continue as I haue begonne, for trew it is that the Poet Pertius writeth.

Fœlix à tergo quem nulla Ciconia pinxit.

Whiche maye ryghte well be englyshed, although not verbatim yet in meanynge on this or lyke sorte.

O happie man that such happe hast,
Thy path to treade so right:
That no serpentyne tungue vvyll carpe,
Or longbild Storke eke Spite.

But returne we to that, from whence we are somewhat digressed. our talke, and communication at thys presente shall not further extende then to institute the Chirurgian in the theoricke parte of hys arte. Wherefore sence you haue learned what Chirurgerie is, wyth dyuers other apte, and needfull thynges: it dothe behoue you to knowe the subiecte of Chirurgerye. For all Artifices and workemen haue their subiectes, and matter on whyche they doe exercise there arte. So the Mason hathe stones, and brykes, whyche accordynge to hys arte, he heweth, squareth, cutteth, & proportioneth. In lyke sorte dothe

the Carpenter wyth Woode, and Tymber and the Smyth wyth yron. All whyche be accompted subiectes to these artes. And yf the Mason Carpenter and Smythe, be so curious and dilygent, in knowyng, chosyng, and consyderynge of stones, tymber, and yron, whyche be thynges of no great valour or estimation: howe muche more then behoueth it the Chirurgian to knowe what the subiecte is on whyche he must exercise hys arte?

Iohn Yates. You haue ryghtlye sayd, and by these your wordes I gather, that the subiecte to the arte of Chirurgirie, is that whyche is to Physike: I meane mans bodye beyng apt aswell to sycknes and infyrmities, as also to health.

Iohn Feild. You haue ryghtlye aunswered, but thys is not sufficient to aunswere that mans bodye is that stone, tymber, yrone and matter whereon the Chirurgian muste exercise hys arte: excepte you also doe knowe the partes of mans bodye, there situation, nature, and office. as of bones, cartilagies ligamentes, Nerues, vaynes, arteries, muscles, flesche, and skynne. For I thynke no man is so rude but doth consider, that wythoute the perfect knowledge of these, how easely he shall fall into intollorable errours, especiallye in phlebotomye, in fractures, and lura-

tions

tions, and where as occasion is offered to make incision.

Iohn Yates. The more I here you two speake of Chirurgirye, the further me thynke I fynde my selfe from the knowledge thereof. And so much the rather, that by your wordes I gather howe that the subiecte and matter of Chirurgerye (beynge the bodye of man) cannot be fully knowen, wythout the exercise of the Anotomye. Wherefore I cannot a lytle meruayle at some, who beynge Chirurgians in name, doe not onlye neglecte thys knowledge of Anotomye: but also Inuieth those that doe therein trauayle.

Tho. Gale. Wel let such go wyth there willfull blindnes, & obstinate ignorance, and let vs nowe consider what the ende of Chirurgery is.

Iohn Feilde. I suppose that maister Yates knoweth that the ende or intention of Chirurgery, is to healc all suche curable infirmities, as are to be cured by the office and dewe administration of the hande.

Iohn Yates. I render to you both harty thankes, for that by your talke I haue learned what Chirurgiry is, the antiquitie of it, & noble authours that did professe it, of howe manye parts it doth consiste on, also what is the subiect or matter on whych the Chirurgian doth exercyse his art, and what is the ende or final inten-

tention of Chirurgerye: nowe I wyll further desyre you to showe me the waye to procede in lernynge and obteyning thys noble and famous arte.

Thomas Gale. Before we set oute the waye howe to attayne the knowlege of Chirurgerie, it is conuenient to showe what maner a man a Chirurgian shoulde be whome we shoulde instructe in this arte. For manifest it is, that all men are not to be admitted vnto thys mysterye.

John Feild: Truthe it is for accordynge to the prouerbe. The diuell made a souter a shypman. signifying here bythat nature repugning all thynge is in vayne. Howe vnapte and vnfyte thynke you, is a swyne to be taughte to hunte: suerly as vnapt, as a hounde is apte & fytte: but in the admission of one to learne oure arte, is to be noted the gyftes of nature, & also education from hys infancye. For yf men exercising artes of lesse estimation and prycte, doe with diligent care chose suche as are fytte for their facultye & arte; howe much more oughte he Chirurgian so to doe?

Tho. Gale. It is suerly so and the gyftes of nature required in hym that should be a Chirurgian Cornelius Celsus doth name to be these. He must be a yonge man, hauyng a sure and

& stedfast hand, voyde of trimblyng, and that he hath the vse of the lefte hande, as well as of the ryghte, a sharpe and quicke slighte, one voyde of all feare, wythoute folyshe pitie: so that he be no moued anye thynge by the clamor and noyse of the patient. but minding to cure hym, whom he taketh in hande, he shall neyther haste more then is meete, or yet make lesse incision then is requisite. Hippocrates in a booke intituled Lex Hippocrates, speaketh of hym that shall learne Physycke in thys sorte, Quisquis enim medicam scientiam verè sibi comparare volit, hijs Ducibus, voti sui compos fiet. Natura, Eruditione, Loco studiis apto, Institutione à pueritia, Industria & tempore. Primò nanquè omnium, natura est opus. Hac etenim repugnante vrita fiunt omnia. at si ad optima viam natura demõstret, artis eruditio facilè eueniet: quam quidem prudentia sibi comparet oportet, ita vt ab ipsa pueritia institutio accedat, atque hoc in loco disciplinis quidem conuenienti. Preterea operam sedulò nauare oportet: eámquè ad longum certè tempus, quo ipsa iam insita disciplina, fœliciter satis, & cum profectu fructus suos ferat. Who so euer (sayth Hippocrates) wyll learne the arte of Physycke,

folowyng

folowyng these guides he shal haue hys desire. Nature, learnyng, an apte place for study, good bryngyng vppe from the chyldhoode, diligence, and tyme. For fyrst of all nature is to be looked for. For nature repugnynge, all thynges are frustrat. But yf that nature be inclyned vnto the best thynges, the knowelodge of the arte wyll easely folowe, whyche it behoueth to get throughe prudence, so that from the chyldehoode he be well trayned vppe, and that in a place apt for study. further more he muste bestowe greate dilygence, and that for a longe tyme, so that learnynge (beynge nowe grafted in hym) may happelye, and that wyth increase brynge forthe her fruites. And Hippocrates resembleth the study of Phisycke vnto agriculture or tyllage. For (saythe he) what consyderation is of those thynges whyche the earth bryngeth out, the lyke in all poyntes is of the knowledge of Phisycke. For our nature is as it ware the feilde, the disciplynes of teachers, are like the seades: also the institution and bryngynge vp from the childhode, is resembled to the castynge of seade into the grounde in dewe and conuenient tyme, the place in whyche he must learne, is as it were the ayre gyuinge norishment to suche thyngs, as sprynge oute of the grouude. The industrie & diligence bestowed in the art, is lyke the

tyllage

tyllage of the plowman, and laſte of all, tyme dothe ſtrengthen theſe, and ſuffereth them perfectlye to be norißhed. And of thys tyme ſpeaketh alſo the poet.

Aſsiduo illiſu durum cauat Vndula Saxum.

The vvatry droppes, ſo moyſt and Softe
Doth pearſe harde Stones vvith falling ofte.

Iohn Yates. If thys ſhoulde be obſerued amonge phiſicians, I doe not doubt but theſe ſhoulde be more famous men among vs, and fewer rude and buſſardlye Emperickes; but thys toucheth nothing the Chirurgian.

Iohn Feilde. As muche as the Phiſician, for doe you not remember, that Hippocrates comprehended Chirurgirye vnder Phyſicke beynge one portion of the curatiue parte?

Tho. Gale. Alſo as touchynge education Hyppocrates in hys booke called De Medico. would haue a Chirurgian folow the warres. For he ſpeakyng of the other partes of Phyſycke ſaythe. Nexte is the Chirurgerye of woundes receyued in the warres, and extraction of dartes and thynges in them fyred. For ſeloome cyuill and inſteſtine diuiſions chaunce in all tymes, yet in externe and outwarde warres, theſe chaunce moſte commonlye.

Wherfore

Wherefore he that wyl vse thys Chirurgery, it behoueth hym to frequent the warres, and folowe outwarde armyes, and hostes of men. For so shall he be exercised for that necessitye and vse.

Iohn Feilde. In dede so dyd Podalirius, Machaon, and Achilles, wyth other more of whom mention is made.

Iohn Yates. Yea but many Chirurgians wyll not occupye themselues in learnyng those partes of whyche they haue daylye exercise. Muche lesse then coult to folowe the warres, they haue not suche a burnynge zeale vnto their arte.

Thomas Gale. The more pitye, not for their cause, but for the common weales.

Iohn Yates. If all these pointes are required in him that shoulde be a Chirurgian (as I must confesse they are) howe happeneth it, that their are an infinite number of Chirurgians in name, whyche haue scarse one of these fornamed, gyftes. And yf they haue any, it is boldnes, for that wanteth not in them, they are as bouldo, as blynde bayerd.

Iohn Feilde. Yea but where Celsus prayseth bouldnes in a Chirurgian, he meaneth the vertue called fortitude, whiche where as necessytie doth require, is not moued wyth the

the teares, countenaunce, and clamour either of the pacient or of the standers by: but myndynge the health of the sycke, accordyng to arte maketh incision, and doth suche lyke thynges.

Thomas Gale. And to aunswer you, why their are suche a sorte of rude Emperickes yea Hosiers, Taylours, fletchers, Minstrales, Soutters, Jogelers, wiches, baudes, and to conclude (an infinite number whyche hertofore ware prohibited the exercise of thys arte) suche as other wyse cannot get anye lyuynge: is for that Chirurgerie is nowe, as it was in the tyme of Hyppocrates. Who sayth that other artes are not exercised wythout lawes, and penalties: but Chirurgerye is free for all persons, the more is the pitye, when as so muche hurte and damage doe daylye spryng, through the abuse of so noble an arte. so that I am more then halfe perswaded, that Chirurgerye wyll hardlye, or neuer gather strength agayne, and florishe: excepte the prynce hauinge compassion of poore deplorated Chirurgerye, doth by vertue of lawes driue awaye from her, theis here forenamed enemyes.

John Yates. But yet I doe meruayle at those, whyche are as it were Chirurgians by profession, knowynge them selues voyde of a number of the poyntes required in a Chirurgian

gian, that for loue to their contrye, and conscience sake: they will not yet at the leaste chose suche seruantes, as had some of the fornamed vertues. Whyche yf they dyd, their were yet some hope that Chirurgirie shoulde hereafter florysshe.

John Feilde. Their aunswere is, that when the skey fall we shall haue larkes. They thynke that they shoulde not haue seruantes to serue in that vocation. For few say they, that haue well brought vp there sonne, will put hym to the arte, because it is accounted so beggerly, and vile. Wher as in deade if for a season they woulde take the more paynes them selues, & admitte none, but such as shuld be somwhat meet, there wolde be a nombre glade to studye the art, because it woulde come to estimation, and be a worshipfull lyuynge to the professer. But shall I shewe you what I thynke is the chefe cause: science hath no greater enymie, then Ignorance, and also the prouerbe is trew, like will alway to the like, and hereof comith it, that suche carpenter suche chippes, suche maister suche man.

John Yates. Yet me thynketh that one maye be a good Chirurgian, thoughe he haue not all the pointes reconyd of Hippocrates and Celsus. As one myght thynke hymselfe ryght happye, though he neuer dyd attayne to Aristoteles

ſtoteles ſummum bonum, or Plato his Idæa.

Tho. Gale. It is one thyng to ſay a good Chirurgian, and an other to ſaye an excellent Chirurgian. But let that paſſe, I woulde we had good Chirurgians. And becauſe the deſcriptions of Hippocrates and Celſus touching what maner a man a Chirurgian ſhould be) ſemeth ſomwhat to ſtraite to you: I wyll ſhowe you what conditions Guido requyreth in hym. Not for that I do preferre the authoritie of Guido, before ſuche fathers and parents of Chirurgirye, as both Hippocrates and Celſus ware, but becauſe perhappes Craſſa craſſis conueniunt magis. Guido requyreth. iiij. thinges in hym that is or ſhoulde be a Chirurgian. Firſte that he ſhoulde be lettered, ſecondly that he ſhold be expert, thyrdlye that he be ingenious, and laſt that he be vertuous and well maneryd. Theis wordes you ſhall finde in his Collectorie.

Iohn Feild. And as touchyng theis. iiij. pointes note firſt wher Guido ſayth he muſte be lettered, he doth meane he ſhoulde be lerned, and that chefelye in ſuche doctrine as is in his art requiſite. That is at the leſt, that he can wright, red, and vnderſtande the mynde of latyne authour. If he had knowledge in geometrie for makynge his inciſion, for curynge fracturus,

fractures, and lurations, and also in curinge malignant vlcers: knowynge what figure woulde moofte spedelye vnite, and Joyne the lyppes of the vlcere: it ware very commendable. Naturall Philosophie is a goodlye ornature to the Chirurgian, for it showeth hym what resulteth whan as there is diuers and sondry simples mixed to gether: but I will go to the second pointe, he must be experte, that is he muste be garnished wyth muche and longe experience, whiche is excogitated be firme and certayne reasons, and by them also confirmed, otherwise he is to be accompted rude, and an Empericke, if he hath not reason annexed and joyned to his experience. Thirdlye sayth Guido. He must be ingenious, vnto whiche there are fyue thynges principally required. Fyrst is the redye and good conceyuynge: then a firme and sure memorye, nexte a sounde and ryght iudgement, after a easey callynge thinges to mynde whyche he haue harde or sene, and laste a lyuelye and sharpe redynes in fyndynge and inuentynge remedyes. The maners whyche Guido woulde haue in a Chirurgian are reconed of Hippocrates and Celsus, whiche briefelye I wyll numbre: they muste be bolde and wyth out feare in suche cures as are with out peryll, and wheras necessitye requireth. Also in cures that be doutful, not to be

to raisye

to raiſhe and haſtie. to be gentle and courteous towarde the ſicke pacient, to be frendlye and louyng, towarde thoſe of hys profeſſion. Alſo wyſe and circunſpecte in Prognoſtications, laſt of all, he muſte be chaſte and temperate of body, merciſull towarde the poze, and not to gredy of mony. and this is ſufficient touchynge the deſcription of hym, that muſte be admitted in Chirurgerye. Nowe let vs talke of the inſtrumentes wherewith a Chirurgian ought to be garniſhed.

Iohn Yates. That is well ſayde and of thoſe inſtrumentes I wold gladly haue vnderſtandynge.

Tho. Gale. And ſo you ſhal, & for the ſuerer and ſounder doctrine, you muſt note that inſtruments are ſaid two maner of wayes. for eyther thy are medicinal, or els inſtruments of metal: as Iron, leade, tynne, copper, ſiluer, & golde, ỹ medicinal inſtrumẽts are medicines, as potiõs, emplaſtres, cataplaſmes, cerotes, vnguentes, oyles, Balmes, trochiſe, waters, & ſuche other. but principally as touching vnguents the Chirurgian (after Guido his minde) ought alwaies to haue in redines, v. ſundry vnguentes aunſwering to fiue intentions curatiue of Chirurgirie, that is to ſay: for to ſuppurate and maturate, he muſt haue Baſilicon, to mundifie and

clenſe,

tiense, Apostolicon. To incarnate and cause flesshe to growe, he shall prepare Vnguentum Aureum. To conglutinate wyth, he shall vse Vnguentum Album, And where as any accidence chaunce, as dolour and payne, he shall occuppye Vnguentum Dialtheum. But I shall not nede to make any longer processe of medicinall instrumentes, when as I haue as I suppose abundantlye shewed in my Antidotarye not onely all the principall intentions curatiue required in Chirurgirye: but also haue set oute medicinall instrumentes both symple and compounde, required in thys arte: as also their compositions vse and vertues. Their are also set oute proper medicynes, dicated and apted to the seuerall partes of mans bodye as heade, breast, stomacke, longes, lyuer, spiene, kydnes, bladder, and suche lyke, as is proued of Galen in hys worke intituled Secundū locos Althoughe manye be of the contrarye opinion. And amonge the reste I wyll showe you a notable historye, I thynke to manye knowen, as well Physitians and Chirurgians, as other worshipfull and honest. It fortuned that in London. 1562. that there was a fraye made, and the one was thurste throughe the breast vnder the pappe, and out vnder the lefte shoulder blade so that of force the longes were perced

throughe

throughe. There ware diuers Phisitions called vnto the woundyd pacient, and they all affirmed constantly death to folowe. I also beinge called vnto the same pacient, did also affirme that death woulde folowe, excepte he receyued a certain potion of whiche I had experience in the like case in the warres, in England, France, Scotland, and other places: and he in dede receyued it, and so the longes ware preserued from putrifaction and the congelyd blod was expellyd oute, the wounde clensyd, and finally bythe arte of Chirurgirie he was restored to his perfecte helth.

John Yates. That man do I right well knowe, his name is Henry Smith a water man, whe was hurte at quene hiue, and he is yet liuyng and in good helth.

John Feilde. Well then, let vs speake of metallyne instrumentes. of whiche some of them are generall: so called, for that thy do generally serue in all woundes, and vlcers: and there are particuler instrumentes, seruynge to seuerall vses or partes of the bodye. Yet haue I hard that diuers affirme howe that in woundes generallye there nedyth no other instrumentes then an incision knife, to dilate and inlarge the wounde. and so wyth the fingers to take out the thynges fixid, whether it be pellyt, splente, arrowe head, or what els so euer it be:

but the errours of theis are so grose as requireth no aunswere, seinge that throughe suche kindes of incisions, it happeneth the greate vaynes, and arteries to be cut, and so greate flux of bloode to folowe, (beside the doulour, and payne whiche foloweth and many tymes losse, and mutilation of the membre) as is in no case tollorable.

Tho. Gale. Truth it is, but touchynge general instrumentes, those which are in most vse and ought to be had in redynes of the Chirurgian are theis: incision sheares, an incision knyfe, a fleame, a lance, whose pictures you maye here set oute, and all this serue to cut and enlarge a wounde: a cauterizin Iron to cauterize with, and stangh flure of blode: a payre of pincers or nippers, to take of plastres, splegeants and thinges fixid in the wounde, a probe to serche the wounde with. a crokyd hoke; a nedle and a quill to solve and stiche with.

John Yates. And what be the instrumentes whiche are called proper?

John Feilde. Proper instrumentes are theis whose figures also folowe. as a trappan, seruynge to the heade whan as the scul or cranium is fracturyd, speculum oris, and speculum matricis, also gossipium, seruyng for luxations and fractured bones. a siryngie masculine and

and also fenyne setons for the necke, aleuatorie and longe neeles of woode, to drawe through the wounde: also gosebilles, crowesbilles & diuers other described & set out of Albucasis, Celsus, Tagaltius, and others.

Tho. Gale. Theis instrumentes be of meruaylous vse, and wyth out whiche the Chirurgian can nether perfectlye, nother wythout greate greife and peril do that is required. and amonge the rest in my iudgement the trapper is most necessarie, and of an excellent inuention in hurtes of the heade. For with out it wher cranium is fractured, broysed, or els anye of the inwarde panicles depressed, you shall litle preuayle. I my selfe haue vsed it wyth great profit diuers tymes, and especiallye ons in Cambridge sheire, whiche I woulde declare vnto you, but that I shoulde be somwhat tedious.

John Feilde. Nothynge lesse, but rather pleasant: for by vtterynge of thynges done, great profit may insewe, and we haue decreed to spende this daye in the talke of Chirurgirye wherfore we desire you declare that historie and we wyll geue diligent eare.

Tho. Gale. Right gladlye. Anno. 1559. a seruant of one maister Mothes, ridynge to the feildes and ledynge a yonge horse in a halter

tyed fast abought the arme of the seruant: the horse beynge wylde, and not broken, starkinge aside vnhorsed thy man, and drewe hym by the arme a bought a great feilde so long, that what wyth strikynge, what wyth drawynge, halyng and pullynge, being wery he stode still, vntyll company came and losed the halter, and toke vp the man halfe deade, and conuayed hym vnto his maisters house. Chirurgians ware sent for, who fyndynge the seruant spechlesse, and wyth out remembraunce of any on whome he sawe: they not perceyuynge the cause hereof them selues, nether yet could be showed of the pacient the place affected, departed and left hym as vncurable. Maister Wrothe sent for me, and I seinge hym spechlesse, and without remembraunce, coniectured the hinder parte of the heade to be hurte, and smittyn of the horse, whiche I was more certayne of, whan felynge that parte I founde it softe. Wherefore I takynge of the heer, dyd made firste incision and after that set a trappan on his heade, and bored Cranium through, and toke oute the peace of bone, which done: ther yssued out muche blod, blacke in colour, and drawynge to putrifaction out of the contused and broken daynes. the nexte daye folowynge, the seruant spacke and came agayne to his perfecte remembraunce, and I vsyng thynges in this cure as arte requi-

red,

red, God restored the man in my handes to his perfecte helth. I coulde also showe you other examples wher the like chaunces haue happened, and the Chirurgians eyther not knowynge, or wilfullye neglectynge this profitable instrument, haue brought the patients to there laste ende. so happened it to a seruaunt of maister Pagetes in fylpotte lane. 1538. and diuers other, whome for breuitie I do let passe.

Io. Yates. This was a worthy cure, and this is a noble instrument, but the Chirurgians whiche neglecte thuse of this or the like instrumentes, are of the opinion of that the rude Emperike Smith was, who in a foolishe boke of him published, did inuay against Chirurgians whiche trapened the heade in any griefe of the same, and semeth to him selfe as it ware an other Thessalus to ouer throughe the famous authers, and Inuentours of this instrument. whan (in the iudgement of the lerned) he was no more to them comparable, then the light of a sparke of fire, is equall to the mooste radiant and shyning beames of beautifull Phœbus.

Io. Feilde. This nowe spoken of instrumentes (whiche a Chirurgian muste haue in redines) shall suffice. nowe let vs showe the methode and way howe the person beinge fitte to be admitted to Chirurgirye, maye lerne the arte, lesse that confusedlye he lerne that firste,

whiche sholde be last, and so set the carte before the horse, to his no small hyndraunce.

Tho. Gale. And for this ther is to be followed and obserued two preceptes: firste, that we procede from thynges comon, vnto those whiche are particuler, or from thynges vniuersall, vnto more particuler. as firste to knowe an inflãmation, then howe many kyndes of inflãmations there are. the seconde precepte is, that we begynne at thynges knowen and so procede vnto those whyche are lesse knowen, as firste in the curation of woundes, we muste begynne wyth a simple wounde; whiche done, we shall procede to the curation of compounde woundes. so in lyke maner in vlcers, firste to knowe and cure a simple vlcer, and then to take in hande compounde vlcers, begynnynge wyth those that are lesse compound, and haue smalest accidents: and so to procede vnto those that are more cõpound, & haue most & greatest accidents ioyned wyth them. the like is also to be obserued in other arts, & scïẽties, as in iudgyng of colors, firste to know whight & blacke, then other colors which are not so manifest according as they com & spring of ỹ mixture of theis. ỹ. now knowynge & considering theis two preceptes, it is necessary for the right vse of his instruments medicinall, & metalline: to cõsider two thinges, that is to say, thinges called accordinge to natur and thynges against nature. Io. Yates. I pray you

what are those which are called accordynge to nature? & how many be they in nombre?

John Feilde. Guido numbreth those thinges whiche are called accordynge to nature to be.vj. that is to say, helth, the cause of helthe, the effect of helth, strength, custome, & cõplexion. and helth is defined to be an effecte according to nature, apte to performe the actiõs of the same.

Io. Yates. And what doe this. vj. thynges accordynge to nature, teache and showe me?

Tho. Gale. Because the Chirurgian is natures freinde, & minister: theis showe you that you muste conserue & kepe them by ther like, & also to expel ther contraries, which wold distroy and overthrowe them.

Io. Yates. And wherof do theis. vj. thinges spring, & by what thynges shall I conserue thē? for although you say vnto me, ỹ they are conserued & kept by ther like, yet is it not sufficient to my vnderstandinge, except you two showe me what they are. Io. Feilde. I wyll tell you, theis. vj. thinges which are secundum naturam, spring of, vj. natural thinges entring the cõposition of mans body. that is to say. iiij. Elements, fire ayer, water, yearth. cõplexions, as hote, cold, moyst, & drie. iiij. humors, blod, coller, fleume & melãcholie, mẽbres of mãs body, vertues, animal, vital, & natural, with ther operatiõs, & spirits. of theis. 7. natural springeth helth & ỹ other rehersed which are accordig to nature

The conseruation of helth dothe consist in the right vse of.vj. thynges named in latyn res non naturales. lyke as in the abuse of them, the decay of helth and breedynge of sycknes and infirmities foloweth.

Tho. Gale. It is right so, and theis sixe are called, ayer: meate and drynke: motion and quiet: slepe and wachynge: repletion and manition: and the perturbations or affections of the mynde.

Iohn Yates. I trust I am sufficientlye taught how to vse my instrumentes accordyng to the indication taken of the thinges which are accordynge to nature: nowe I pray you let me vnderstande what those thynges are whiche are againste nature, howe manye they are in numbre, and what indication is to be taken of them; for the further vse of my instrumentes.

Iohn Feild. Those whiche are agaynste nature, are so called: because they are contrary to the same, and doe further destroy and ouercume nature, and are vtter enemyes to helth, and theis are.iij. in nombre: sycknes, the cause of sikynes, and the accident. the cause of sycknes, is that effecte contrarye to nature, whyche goeth before the sycknes, and prouoketh the same, and ther are accounpted of Galen, and the Gretians whome I folowe) two causes of

sycknes

sycknes. the one beinge outwarde, called procatarctike, or cause primatiue: the other is with in vs, and is named the cause antecedent, or precedent, or cause interne. sicknes also is defyned of Galen to be an affecte againste nature: of whyche the action of nature is firste hurte, & vitiated. and the same Galen doth also make iij. kindes of sicknes generallye, accordynge to the partes of mans bodye in whyche they are. as in the similer partes, sycknes is called intemperature, whiche is eyther hotte, colde, moyst, or drye: or els hotte and moyst, hotte and drye: cold and moyst: cold and drye: and yf it be in the instrumental partes, the sycknes is named, yll constitution or conformation: but yf sycknes happen bothe to similer and instrumentall partes, then it hath to name, solution or diuision of cõtinuitie. Also the accident is one effect against nature in lyke sorte as the cause of sicknes and sycknes it selfe is: but it differet from them in this, that like as the cause goethe before sycknes and prouoketh it: so doth the accident folowe sycknes, lyke as the shadowe doth the man. nowe this worde accident, is taken generally, of whiche we wyll nothyng speake, and it is vnderstande more straytlye, or properlye, so is accidente three wayes diuided. for eyther the action is hurte and quite abolished, as blyndelnes in the eye; or els diminished, as

diminishe

dimnisse of syght, or els the actions is corrupted as the syght decrayed, and for the indication whiche is taken of theis three thynges agaynste nature: note theis twoo greate, (and of all men alowed) conclusions. Contraria sunt contrariorum remedia. also, similia conseruantur similibus. lyke as thynges whyche are accordynge to nature, are conserued and kepte by ther lyke: so also thynges contarye, are remedies for ther contrarves. and therfore theis iij. thynges agaynste nature, showeth you that they are to be expelled and put away by there contrarves. as for example, solution of continuitye beinge sycknes bothe of similer and instrumentall partes showeth that he muste be put awaye by his contrarye, that is vnition and Joyninge agayne, also heat is put awaye by coulones: coulones by heate: drynes by moystnes, and moystnes by drines: and soin like sorte in other sycknesses the indication is taken of the contrarietie. doe you nowe vnderstand this?

Iohn Yates. Right well, so that nowe I doe perceyue that the right vse of my instrumentes medicinall, and metallyne, is takyng of thynges accordynge to nature, whyche showeth the conseruation by lyke and agreable medicynes: and of thynges agaynste nature, whyche teacheth me to applye thynges contrarys

trary wher by I may take awaye all that which is againſte nature, but yf you wilbe ſo good as to ſet oute (though it be in breake wordes compendiouſlye) thoſe thynges agaynſte nature, whyche falleth vnder the handes of the Chirurgian, as you haue made playne to me thoſe thynges whyche are accordynge to nature: I ſhoulde thynke my ſelfe ſo muche bounde, as hardly I ſhalbe able to recõpence. for although I knowe that thynges contrary to nature, are to be remoued by there contraryes, yet if I haue not the exacte knowledge what thoſe thinges are, I ſhall very hardly be able to aplie and vſe there contraries.

Tho. Gale, It is ſuerlye ſo, for howe muche wyde you are in knowledge of the ſyckenes: ſo farre wyde ſhall you alſo be in fyndyng out apte and conuenient remedies, and thoſe perticuler greſes, or affectes againſte nature whyche are ſubiecte to Chirurgirie (as Galen witneſſeth in the. 14. booke 13. chapter of his therapeutike methode) are for the mooſte part reduced to. 9. Titles or chapters. that is to wete tumours againſte nature, woundes, vlcers, fractures, and lurations, there be other thinges beſides theis which require the vſe of the hand: but theis rehearſyd perfectly knowen, thother wilbe eaſye to attayne vnto.

Iohn

Iohn Yates. Then I praye you begynne fyrst wyth tumours, and those beyng fynished procede to the rest.

Iohn Feilde. Fyrst it behoueth you to knowe that thys worde tumour (called in Greeke onchos) is not that whych Auicenne, and the Arrabians name Apostema, and the Latinistes call Abscessus. For tumour is a generall name to all apostems, and tumours, where as thys worde apostem stretcheth no further but onely where as phlegmone is torned into matter, & three other tumours called Atheroma, steatoma, & meliceris. so that this word apostem, is not so large and generall a name, as tumour is: and therfore abused of Guido, and other, where they call all tumours agaynste nature, by the name of apostemes.

Iohn Yates. Why syr, be not all tumours agaynst nature?

Tho. Gale. No for sothe, for then it had bene for hym superfluous to haue added these wordes, against nature. And Galen in his boke De tumoribus præter naturam, maketh three kyndes of tumoures. One that is secundum naturam, according to nature: as the braines, muscules, and other emynencies of mans bodye. The seconde is called aboue nature: when

as

as these forenamed partes are increased more then their naturall formes, and fygure: but yet in suche sorte that the partes can doe theyr offi-cies. The laste kynde of tumour is called tu-mour agaynst nature. Because thy hurte the action of the parte where it infesteth.

John Yates. I doe nowe cal to remembe-rance Master doctour Cunyngham who made also the same diuision of tumours, 1563. when he red the booke of Galen of tumours agaynst ture to the Chirurgians of London in the hall, but I pray you let me learne what a tumour a-gainst nature is?

Tho. Gale. Out of the same booke of Ga-len, you may gather thys defynition. A tumour agaynst nature, is an augmentation, or swel-lynge, exceedyng the natural fygure of the same and hurteth the action of the same. But Auicenne saith that an apostume (for so calleth he a tumor) is a sickness cõpound of three kind of infirmities, that is to say of intemperatures, of yl cõstitutiõ, & solutiõs of cõtinuity: these wordes you shall finde in the first booke of his Canon.

Iohn Yates. How many kind of tumours are there.

Io. Feild. Guido & other writers of his time make iii. kindes of tumors: Apostema, Pustula, & Exitura. Apostema he calleth a great tumor

iii

in whych the matter (whereof it springeth) doth offende rather in quantitie, then qualitie. pustula he doth make a lesser tumour, in whych the matter dothe hurte by qualitye, rather then quantitie. And thys tumour tharabians call Bothor. the threed, whiche Guido nameth Exitura: is that whiche the Grecians doe properly cal Apostema, & the latinistes; Abscessus.

Thomas Gale. But the Grecians doe make differences of tumors, accordynge to the substaunce wherof they doe spryng. so that ther be but two kyndes of tumors generally. that is to say. humoralis, sprygyng of humors, and flatuosus commynge of wyndye spirites: this Guido termeth Apostema ventosum.

Iohn Yates. And howe many differences is ther of tumors whych do spryng of humors?

Tho. Gale. Twoo, simple, and compounde.

Iohn Yates. Howe many simple be ther?

Iohn Feild. There be also. ij. hote & colde

Iohn Yates. Why are theis tumours called simple and compounde?

Thomas Gale. They are called simple, whan as they spryngе of one sincere humour, with out the mixture of other. and they are called compounde, whan the tumor cometh of two

or more

or more humors.

Iohn Yates. Wherfore are the tumors called hotte, or colde?

Tho. Gale. They are called hotte, because they springe of hoote humours: and named coulde by the lyke reason, because thy are ingendryd of could humours.

Iohn Yates. How many hotte tumours be ther, and how many colde?

Iohn Feild. Diuers, and sondrye, as you shall perceyue by the proceſſe of our talke. but the moſt famous are foure: springynge of the iiij. humours simplye, wyth out the myxture of other of theis two &c.

Iohn Yates. Whiche be thay.

Iohn Feilde. One comyth of blode, and is called Phlegmone, in Engliſhe, inflamation: an other springeth of coller, and is called Erysipelas, or. S. Anthonies fyer: and theis be hoote tumours. an other cometh of fleume, and is named Oedema: the forth is ingendred of melancholie, and hath to name Scirrhus. This two tumours, are colde, all other simple tumours are aptly reduced to theis. iiij.

Iohn Yates. And what be the compound tumours?

Tho. Gale. They be diuers and varieth ther names accordynge to the mixture of humours.

mors. and the humor are mixyd, equally, or inequally, if they be myxed equally: then the tumour is called Phlegmone and Eryspelas. but yf they be inequallye mixyd, then the tumor, taketh name of the humor whiche surmounteth, as blod surmounting choller, in a tumor: it is called Phlegmon Erisipelatodes, if fleume be myxed with blode in stede of coller in forme as is aforesayd: then the tumor is named phlegmone Oedomatodes, and if blode myxyd with melancholy surmounte it is called Phlegmone scirrhodes. so in lyke case there are. iij. tumors whiche take names of the humors myxyd with collor, coller hauynge the dominion as whan blod is wyth collor they call the tumor Eryspelas Phlegmonosum. If fleume, Eryspelas Oedematosum, and if melancholike then the tumor hath to name Eryspelas scirrhosim in lyke maner, fleme hauing dominion in the moisture wyth any of the other three humors, the tumor is firste called Oedema, and then yf coller be mixyd wyth it they adde this worde Eryspelatosum. If blode the tumor is called Oedema Phlegmonosum, and yf melancholie, then is it namyd Oedema scirrhosum, and to conclude, the lyke is to be sayde of melancholie whan as any of the other. iij. are mixed wyth as scirrhus

Plegma-

Phlegmonosus, scirrhus Erysipelatosus; and Scirrhus Oedematosus: blod, coller or fleume beinge vnequallye mixyd wyth melancholye.

John Yates. What profit insueth to the Chirurgian by knowynge the mixtur of theis humors, in tumors against nature?

John Feilde. Greate profite, for by knowyng the true mixture, he is taught therafter accordingly to vary his medicines. for like as a simple tumour hath a simple cure & is cured by his contrarie: so a compounde tumor hath a compounde cure & is cured by his contrarie. as for the more plainer vnderstandyng, if ỳ tumor be mixyd of fleume and melancholie equally: then shal you equally mixe suche medicynes together, as are conuenientlye vsed in Oedema and Scirrhus, But if fleume, and melancholie be inequally mixyd: and the greater portion is fleume, then in the composition you must in lyke maner put the greter portion of suche medicynes as you vse in Oedema, and the lesser of suche as are applyed in Scirrhus. and this rule, and precepte is to be diligently obserued in all compounde sycknes. and for because the mixture of theis tumors, is so necessarie for a Chirurgian, as you maye righte well perceyue by that whiche is nowe spoken: beholde this table which showeth you all the mixture and names

of tumors against nature. Which for the great profit wolde be commytted to Memorye, of him that wil haue the Methode of curyng cõpounde tumors against nature.

Iohn Yates. You promysed to showe the tumors which are refered to the .iiij. principall simple tumors, Phlegmone Erisipelas, œdema: and scirrhus.

Iohn Feild. And that we promised, we will performe, first vttering ther names: & that being done, we wil show you ther definitions. And we will begin wt sanguine tumors, which are referred to Phlegmone: & then procede to the reste. There are referred to phlegmone: Phygethlon, Bubo, Phyma, Dothienes, Anthrax, gargareon, Paristhmia, aneurisma, Gangręna, & Sphacelus.

Iohn Yates. What is Phlegmone?

Tho. Gale. Galen affirmith phlegmone (or as we cal it in English, an inflãmation) to come of the flux of blode by the greater vaines, & arteries, vnto those which are lesser: & frõ them vnto those vaines which are lest of all (which because they are no greater then heres, are) called capillares. These vaines beinge fylled wt this contynual flux of blod, part yssuith out be ỹ mouthes of the vaines: & part by ỹ cotes of ỹ same, wherby the voide spaces are filled, inflamed, disten-

ded

ded & ſtreched out. And this tumor galen calleth the inequall intemperature of the muſcle. And note, that there are two kindes of inflammations. One which is called vera inflammatio, & this ſpringeth of good and naturall blode. The other is named Non vera, coming of yll and vnnaturall bloode, and this is common to all inflammations.

Iohn Yates. What cal you Phygethlon?

Tho. Gale. That which Celſus nameth Panus and this tumour is an inflammation of the glandilous partes in the nercke armpites and grine, which yf they be indurated after this inflamation, ther cometh tumors which is named Chœrades in latine ſtrumas and Guido nameth them ſcrofulas and then this tumor is numbred amonge flegmatike tumours. And is wyth vs vſually called the kings euyll: becauſe the kings and Queenes of England (by a diuyne and peculer gyfte of God) doe cure ſuche as are moleſted wyth this infirmitie, whan as no arte of Chirurgerye can take place. And thys diffe-reth muche from that ſyckenes whyche the Latyneſtes name Regium morbum.

Iohn Yates. Wherefore is it called in Greeke Chœras?

Iohn Feilde. Eyther of ſtones apearing

by the Seas, or els of swyne whiche are often vexed wyth this tumor.

John Yates. As touchyng Bubo, Guido calleth it a flegmaticke apostheme, wherfore I wyll let that passe vntyll we come to the reasonynge of the same.

Tho Gale. You seame to accuse vs of errour, or ignorannce whan as we shoulde numbre flegmatike apostemes as you cal them amonges sanguine tumours. But I wyll this affirme boldlye that Guido eyther meaneth some other tumor whiche he so calleth: or els he repugneth manifestly wyth Galens authoritie, for Galen maketh Bubo a simple inflammation of the glandelous partes in that flankes.

John Yates. I doe not accuse you but rather shewe you Guido his mynde: which seing that it doth not agree wyth Galenes I muste gyue place and allwaye preferre Galen before Guido. Wherfore I pray you procede with the other inflammations and shewe me what the tumor is whiche the Grekes call Phyma.

Io. Feilde. This tumor is a pushe which wyll presently as yt ware come to suppuration, and it is called Phyma by similitude it hath with puffes or mushrumes springyng oute of the yearth. and ther be two kyndes of theis tumors, one comynge of heate, an other of coulde

but we in this place do nombre onely the hoote tumor amonge inflammations.

Iohn Yates. Dothienes foloweth nexte in order.

Tho. Gale. Dothienes in Greke, is called of Auicenne, Aldemurenul, of Celsus furunculus, with vs a felone or cattes heare, & is a sharpe swllynge wyth inflammation chancing in the fingers with dolour & tourneth to matter spedelye, and theis often haue a feuer ioyned with them.

Iohn Yates. What is Anthrax?

Io. Feild. That same which we cal Carbunculus. and is an vlcerous tumor springyng of grosse melancholycke bloude putrifyed. This tumor foloweth greate inflammations, and ther are two kindes of carbuncles. the one more gentle and benigne: the other pestilential, and mortall, and the carbuncle is both wyth pustles and also without.

Iohn Yates. Guido maketh difference betwirte anthrax and carbunculus.

Tho. Gale. Ther is no difference at all, but that anthrax is a greke worde & Carbunculus a Latyne. For Guidoes difference wher he maketh anthrax a malignant tumor, is no other thing then the pestilential carbuncle. but his diriuation of the name is more ridiculous where

 he saith

he saith that Anthrax is said of Antra, whyche he saith signifieth the harte, but in what tungne Antra is used for the hart that he left vnwrittē. sure I am, that it is neyther latyne, Greke, nor arabicke worde.

Io. Yates. Wel then I am herein satisfied touchynge the Carbuncle, what defyne you Gargareon to be?

Iohn Feild. Gargareon called in latyne Columella is an inflammation of vuvla, like as Paristhmia or tonsille are inflamations of the kerneiles situated in the beginning of ỹ iawes. Guido & other of his sect call them Amygdalas.

Iohn Yates. Anecurisma is nexte.

Tho. Gale. This tumoure is no other thynge, then a dilatation or rather relaxation of the arteries, whereby the bloode and spirites are dispersed makyng a softe tumour whych beynge pressed, with the fyngers semeth to banish awaye: but the fyngers taken agayne away, The tumour cometh to his wonted bygnes againe.

Iohn Yates. If you doe in like sort set out what Gangręna & sphacelus are then you haue finyshed all suche tumoures as are referred to flegmone.

Iohn Feilde. Galen in hys second booke whych he wrotte to his frende Glauco defyneth

gangrenam to be a mortifycation of the member vnconfyrmed, sprynging of greate inflammations. And Sphacelus called of diuers wryters Aschachilos. and of the latinesses syderatio is the eracte and confyrmed mortification of the member.

Iohn Yates, Then by your wordes I gather that bothe Gangrena and Sphacelus folowe after greate inflammations: and that they two differ in this, that Gangrena is as it were in growing and increasing euer more and more towarde mortification of the member: and sphacelus is whan as Gangrena ceasith to corrupte further the member, and that is nowe perfectlye mortifyed and deade boyde of all naturall heate, blode, spirites, and feeling.

Tho. Gale. You haue rightly sayde.

Iohn Yates. Then seyng we haue thus ended suche sanguyne tumoures as are referred to Phlegmone, I praye you in lyke maner procede in the colorycke tumours whyche are of like affinite with Erysipelas?

Tho. Gale. Wee wyll so doe. Vnto Erysipelas are referryd Herpes, Phlyctenę, Epinyctides and Hydroa. But fyrste wee wyl define what Erysipelas is, and then procede to the reste.

Iohn Yates. I thanke you that you will accomplishe my request and desire.

Iohn Feilde. Erysipelas beynge of much affinitie with Phlegmone, called also of the Latinestes ignis sacer, of vs wylde fyre or Saincte Anthonies fyre, is a flure of coller staying aboute the skynne nothyng molesting the flesshe. And it differeth from Phlegmone fyrste that there is no pulsatiue dolour in it, then that in the inflammation of bloode the colour is alwaye redde: in Erysipelas the colour is yelowyshe pale: laste that Phlegmone ys an affecte of the muscules: and Erysipelas is onely of the skynne and thys is to be vnderstande of Verum Erysipelas.

Iohn Yates. Is there any more then one kynde of Erysipelas?

Tho. Gale. Haue you forgotte that which was before rehearsed of compounde tumours? And that there was Erysipelas Phlegmonosum, Oedematosum, and scirrhosum? These be comprehended in dede vnder the name of compounde colloricke tumours or Erysipelas illegittimum.

Iohn Yates. So then you make two kinds of Erysipelas verum: and also illegittimum.

Iohn Feild. It is ryghte so. And that which

whyche is illegittimat or not ryghte Erysipelas is also diuided into two kyndes. The one commyng of the groser and thicker sencere coller and is named Erysipelas wyth vlceration and the other is coller hauynge other humoures mixed with it as I saide before.

Iohn Yates. Seynge then that I vnderstande what Erysipelas is, and howe manye kyndes also there are of them: I praye you let me vndestand what herpes, is for that foloweth nexte in order.

Iohn Feilde. Herpes is that tumour and affection of the skynne whyche Hippocrates so dothe name of corrodyng and deuourynge the skynne; for herpo is that whiche is called in latyne Serpo whereof commeth hérpys quasi serpens. And there is two kyndes of herpes, one called herpes Estiomenos, so called because it eateth and deuoureth: the other is named Cenchros in latyne miliaris for that the tumour is like Millit seade. Iohn Yates. Guido dothe speake of Estiomenus in this wyse. Estiomenus est mors et dissipatio membri: et propter hoc dicitur Estiomenus, quasi hominis hostis, cum putrifactione & mollificatione membri.

Tho. Gale. where Guido sayth that Estiomenus

stiomenus is the death and dissipation of the membred and for that is called Estiomenus as who shoulde saye the enemye of man, comynge with putrefaction and mollification: I do litle in my Judgement alowe hym, first that he leaueth the princes of Phisicke Hippocrates Galene and Paulus, and followeth those of smale lernynge and authoritie: and then that he will seame to interprete that tungue in whiche he had small knowledge. for wher ded he euer red amonge the Grecians that the tumour Estiomenus was confoundyd with Sphacelus, which in dede is the mortification of the membre. and agayn wher lerned he the derivatiõ of Estiomenus to be hominis hostis. But this maye yet seame tolerable in Guido, whan that Auicenne gyuynge occasion of errour to other, comprehendynge both kyndes of herpes, vnder the name of formica, doeth also moofte absurdlye comprehende myrmecias (that is to saye formicas and is a kynde of wartes) vnder the name of herpes and so confoundeth bothe to gether. but this shall suffice touchynge herpes.

John Yates. Then let me lerne what Phlyctenæ are.

John Feilde, Actius in his. xiiij. bookes

and

and .63. chapter sayth that they are pustules comynge of sharpe coller: lyke to the blestres whiche cometh of scaldynge water, and, bryng no vehement dolour or payne, whiche beinge broken ther flowyth oute a yelowlhe humour, continuynge vnto the third or sometyme forth daye.

Iohn Yates. And what doth theis kinde of pustules differ from those whiche are called Epinictides?

Tho. Gale. Very much. for epinyctides be the moste yll and malignant kynde of pustules. be swarte, and leady in coloure wyth greate and vehement inflammation abought them. and theis beinge opened ther is founde a slymye exulceration in them. this tumor is neuer greater then a beane: and is called Epinyctis because comonlye they spryng in the nyght season, and then moste molesteth the pacient. The Arrabians call this tumour essare, or saire. and Plynie nameth it Pustula lyuens.

Iohn Yates. There yet remayneth those tumours whiche the Grecians doe call Hidroa and the Latinistes Sudamina.

Iohn Feild. Auicene nameth them planta noctis and Rasis Alhasaphum. Theis are certayne colericks pustules

pustule comyng of muche and abundant swette whiche through the sharpnes therof doe craspe-rate and vlcerate the skynne: and thus haue you lerned the most famous and notable colloricke tumors wherfore we wyll nowe conuerte oure talke to suche as are phlegmatike.

Iohn Yates. You do meane suche as are referryd to Oedema do you not?

Tho. Gale. Yes verely and they be called by their names. Atheroma, Steatoma, Melice-ris, Hidrocele, Ascites, Leucophlegmatia, chæ-ras, Bronchocele, and Hydrocephalon: and as touchynge Oedema it is thus defyned. Oedema is a tumour softe, lose, and with out dolour or greefe, syngynge of fleume. and it is deuyded into Oedema that is a desease, and into that whiche is symptoma or accident. of this Galen maketh mention in the. xiiij. boke. iiij. chap. of his therapeutike methode. the trew Oedema is that whiche folysshly the Barbarous Cirur-gians call vndimia.

Iohn Yates. I remembre Guido nameth it both vndimia and also ydemea, and cimia: but let that passe. I pray you set out those three famous apostemes flegmatike whiche you call Atheroma, Steatoma, and meliceris.

Iohn Feilde. This apostheme called in Latyne

Latine abscessus and of Haliabbas, Selaa, of Auicenne Nodi, haue diuers names after that thynge whiche is in euery of them conteyned. For Atheroma whiche is a tumor of like colour on all partes and with out payne and dolour, conteyneth in the neruous cootes a shlyme humour and lyke a pulteſſe in substaunce. and somtyme there is founde in it heres, skales like bones, & hard thynges as they ware stones. and Steatoma that is to saye adipinus nodus, or a fattye knote or a tumor, is an augmentation of fatnes againste nature gathered in some parte of the bodye. Meliceris or Nodus mellæus, is a rounde tumour harde and voyde of grefe in whiche the neruous coates do conteyne an humour lyke in substance to honye. and all theis iij. effectes are first small and lytle. and so by lytle and litle augmente and ware. and are conteyned wyth in there seuerall sylmes or coates.

Iohn Yates. What defyne you hydrocele to be?

Tho. Gale. Hydrocele is that whiche in Latine is called hernia aquosa or humoralis, and is a tumour springynge of a watrye humoure gathered in the purse of the testicles.

Iohn Yates. And what is ascites?

Iohn Feilde. It is one kynde of the dropsie. and this tumour is whan that a serose humour

is a

is conteyned betwixt the inwarde coate of abdomen and the intestines. This coate is called peritonæum.

Iohn Yates. Leucophlegmatia foloweth next.

Iohn Feild. It is also named Anasarca and hypostarca and is an inequall tumour going through the hole body. this may in my conceypte be aptlye termed an vniuersall œdema of all the bodye, as touchynge cherades we haue spoken amonge sanguine tumours.

Iohn Yates. There yet remayneth two tumours Bronchocele, and hydrocephalon.

Thomas Gale. Bronchocele is a tumour in the throte called also Bocium, & it is a greate and rounde swellynge of the necke betwixt the skynne and aspera arteria, in whiche is conteyned some tyme, flesche, some time like hony, fatnes, or a pultesse. and sometyme sayth Celsus ther are founde heares mixyd with bones also Hydrocephalon is a watry tumour ingendred for the more part in the heades of childzen, or els it come of grosse blode collected in anye parte of the heade, ther be. iij. kyndes of this tumour. one whan the humor is betwixt pia mater and the braine. the seconde whan the humor is collected betwixte the coates and the bones:

the. iij.

the.iij.is betwixt pericranium & the bone, the last is betwixt the skynne & the bone. & thus we haue set out the most notable kindes of flegmatike tumours.

Iohn Yates. Seinge that you haue fynyshed thyce kyndes of tumours sanguine coloricke and flegmatike, nowe I pray you let vsspeke of melancholicke in like sorte.

Iohn Feilde. Vnto Scirrhus are referred. Cancer, Elephantiasis, Satirasmus Psora lepra, Enchimoma, melasma, varices, sarcocele, Polipus Verruce, acrochordines, myrmeciæ, & suche lyke. and firste we will take oure beginnynge with Scirrhus, you shal note that ther are reconyd of Galen. ij. kyndes of Scirrhus. one that is exquisite. the other not exquisite. The exquisite Scirrhus is definyd to be an harde tumour against nature, with out dolour or felyng and is incurable. The second kynde of Scirrhus is also a tumour againste nature harde, but not al together insensible and therfore curable. although it be not wyth out difficultie.

Iohn Yates. Nowe seyng I haue lerned what Scirrhus is and also howe manye they are, I prays you procede to Cancer.

Tho.

Tho.Gale. Cancer called of the grecians Carcinoma,and Carcinos,is an inequal tumor against nature,horrible to beholde,of swartishe colour and with great payne.It is called cancer of fygure and similitude it hathe wyth the sea crabbe.for like as in that,the feete are on bothe sydes of it: so in this tumour the vaines beyng fylled wyth a grose melancholike humour,they are swolne and discended like as it were the fet of a crabbe or this tumour maye otherwyse be called cancer because it dothe so inseperablye cleaue to the place where as it once is fyrmely fyred.and there be twoo kyndes of Cancer.one that is wyth vlceration and is called Cancer Vlceratus,an other that is without vlceration and is named Cancer Occultus.

Iohn Yates. What is Elephantiasis.

Iohn Feilde. It is an vniuersall Cancer of the body,and is that which the latter writers of the Arabians name Lepra, &. S. Lazarus sycknes: it taketh name of the beaste called an Elephant be cause of the greatnes of the affecte length and roughnes of the skynne. It is also named Leontiasis because of the lose & rugose tumour of the skynne.This sycknes is terrible, contagious and in the number of those infirmities placed whych are contagious.

Tho.Gale. And when thys tumour is but

yet in the begynninge. it is not called Elephantiasis but Satyriasmis, takynge that appellation of the satyres whome the Poetes describyd to be deformyd and monstrous.

Iohn Yates. Seynge that Elephantiasis is not lepra Grecorum, I pray you; shewe me ther difference.

Iohn Feilde, Galen in his booke of difinitions doth difine it in this sorte. lepra is mutation of the skynne into an habite against nature, wyth asperitie and ychyng, dolour and skales and occupieth diuers partes of the body. and there is no smal affinitie betwixte lepra and scabies: both being affections of the skynne, both springynge of melanckolicke Iuse. and they differ in figure. for lepra occuppeth and deuoureth depely the skynne in rounde figure, and casteth skales like fishe: and scabies called also psora infestyth rather the vpper parte of the skynne and is diuersly figured.

Iohn Yates, Enchymoma foloweth next, and melasma,

Tho. Gale. Galen in his booke de tumoribus præter naturam. 10. cap. saith that they are tumours happenyng to olde men throughe the contusion of the vaynes: wherby the bloode flowe out of the coates of the vaynes. of theis some be blacke, some betwixte blacke and redde

in colour. & they come of small & light occasions
John Yates. The next tumours are varices in greke called Cirsous which I take to be ỳ swelling of the vaines through to great flure ofgrose & melancholike blod. And I haue most comonly sene them in the shankes and testicles.
John Feilde. And those be the proper places for this tumour: lyke as the two tumors nexte folowynge sarcosele and Polypus haue ther peculier partes which they doe infest, as sarcosele is a fleshye tumour growynge in the testicles, and is called in Latine hernia carnosa: the other is a fleshye branche springynge in the nosthrilles, and letteth the operation of the same. and it taketh name of a fleshe called Polypus. for lyke as that fishe hath many legges, so also hath this tumour manye rootes wherby it cleueth and groweth to the nosthrelles.
Tho. Gale. It is right so, and verruca whiche is nexte in order, is a certayne tumour apperinge in the uppermost parte of the skynne it is named with vs a warte, of this sorte be acrochordones, and myrmeciæ. Acrochordon is a rounde warte hangyng as it ware by a threde and therof taketh name. and is called in Latyne verruca pensilis. and myrmecia is also a kynde of wartes whyche groweth deper and is hard and fixed to the skynne, narowe aboue,

and

and brode beneth, prouokyng dolour and paine and is blacke in colour. and thus haue we finished and declared vnto you all the notable tumours whiche are referred to the. iiij. simple Phlegmone, Erysipelas, Oedema, and Scirrhus.

Iohn Yates. Yet amonge all theis I here you make no mention of morbus, whiche I thyncke is to be numbred amonge tumours againſt nature?

Iohn Feild. I do not well vnderſtande your meanynge, for manye a tumour is called morbus. for morbus is a Latine worde, and all ſyckines and infirmyties be called morbi

Iohu Yates. Yea but I meane that ſcabbe whiche the common Chirurgians calleth the morbus, and the morbus cauſe, and the better lerned nameth it morbus gallici

Tho. Gale. If it is a great thynge to be trayned vp in ignorannce or Barbarous doctrine at the firſt, for euer after do what you can they will haue ſome taſt therof, as right excellently the Poete Horatius ſaid.

Quo ſemel imbuta recens ſeruabit odorem.
Teſta diu &c.

Whiche is as muche in effecte to be vttered in our vſuall language as

VVith vvhat thou first filste thy vessell.
Of the same longe time it vvyll smell.

And this may right well be verifyed wyth those of our tyme: one rude Emperike called it the morbus and a numbre foloweth hym in his folly. and an other because he wolde seme connynger then the rest, wyth as muche ignorance nameth it morbus, Gallici brekynge the olde Prictians head, and yet wil not, or can not gyue hym a plaster. But if you will vse that vsuall name you might haue named is morbus Gallicus, or Lues venerea, and so haue obserued cõgruitie in spekyng. but as touchyng the names of that contagious infirmitie, which is vsually named morbus gallicus: in my opinion they all doe nothyng expresse the nature of the sycknes. and lyke as the authors, whiche wright of it varieth in the names: so do they both in knowyng the disseace, and cure of the same.

Iohn Yates. What then shall I properlye call it?

Iohn Feild. That same that Maister Doctour Cunyngham hath inuented a similitudine cum chamęleonte bestiola. That is he calleth it Chamęleontiasis. the reasons hereof, the definition, cause, signes, prognostications, & newe kynde of curation, he hath expressed in a booke

booke therof wrytten, whiche I truste he wyll hereafter publisshe.

Iohn Yates. And dothe he not numbre chameleontiasis amonge tumours against nature?

Tho. Gale. Nothynge lesse, for he accompteth all those tumours, swellyng, knottes, vlcers, and suche like infestyng the body of man: but as accidents. and no parte of the infirmitie, neyther laboureth he so muche in theis as in expellynge the sicknes whiche bryngeth forth theis accidentes. for theis are to be remoued with out difficultie or great trauayle.

Iohn Yates. I iudge his newe inuented way of curation to be extreme and dangerous to the pacient. for both the fumes, vnguents, and strayte order of diet with the wood, are wel knowen to be dangerous, and yet many tymes doeth not that whiche they promise. but yet yf his way be perfite it is the more to be likyd and he worthy prayse.

Iohn Feild. His waye is voyde of danger, easie to the pacient, exacte also and perfite.

Iohn Yates. Seinge then that Chamæleontiasis vulgarlye termyd morbus gallicus is not to be numbred amonge tumours againste nature I pray you procede to the other parte of your diuision, for I remembre that you sayde

ther ware.iij.kyndes of tumours, the firste you called humoralis because it doth springe of humours. the second ventosus, for that it is ingengendryd of spirites. The third you termyd. tumour varius, because they hae mixyd causis. somtyme of humours and spirites myxyd, and somtyme of other causes. Ther for I pray you nowe let me lerne how many tumors are referryd to ventosus tumour.

Tho. Gale, The most fomous are two. Tympanites and priapismus.

Iohn Yates. What is tympanites?

Tho. Gale. That whiche Hippocrates nameth a drye dropsie. and is a tumour spryngynge of wyndye spirites, collected betwixt peritonęum and the intestines. and if you smite the body of the pacient vexid wyth this tumour it will gyue forth a sounde lyke to the tympanie and hereof it first toke name.

Iohn Yates. And what tumour is that whiche is callyd Priapismus?

Iohn Feilde. Priapismus is a tumour of the yarde, wherby it is destēdyd out in length and breth through vaporous spirites fillyng the nerue called neruus cauernosus constituens colis substantiam.

Iohn Yates. There yet remayneth to speke

to speke of those tumours which you terme tumores varios.

Tho. Gale. Ther doe so as you saye. and theis be the notablest of those tumours. vitiligo, exanthemata, parotides, mentagra, Epiplocele, Enterocele, Enteroëpiplocele, Bubonocele, exomphalos, Arthritis, podagra. Chiragra.

Iohn Yates. What call you vitiligo.

John Feild. If you will generallye take it, it signifyeth a foulnes and slaynynge of the skynne, coming of the yl disposition of the parte, whiche can not make good assimulation of the nourishement. and ther be two kyndes of this tumor, the one named in greke Leucæ of the Arabians Albaras, and in Latine vitiligo alba whiche is a mutation of the skynne in to more whightnes. the other is named alphos, and of Auicenne morphea, and we vsuallye cal it the morphew. and ther are two kyndes of morphew, the one whight called of Celsus Leuca Alphos, the other blacke. and he termeth it mela. and alphos, is deriuyd of this Greke verbe Alphenein, whiche signifyeth to alter or change. and so doth the morpheu alter & change the coulour of the skynne.

Iohn Yates. And what tumors are those whiche the grekes do cal exanthemata?

Tho Gale. They be pustules and tumours breaking out of the skinne, bringing with them feuers and manye other accidentes. And there are two sortes of them: one hygher springing of thimne and cholorike bloode, the other broader and commeth of melancholike and grose blode. the fyrst kynde we call the small pockes, in Latine Morbilli, the other the measelles, & Variolę in Latyne.

Iohn Yates. Parotides folowethe nexte in order.

Io. Feilde. Parotides be inflammations whych happen to the karnelles that are behynd the eares. And they springe sometime of sincere bloode, sometyme of scume, sometyme of choller, and sometyme of melancholie. And herein note the prouidence of nature. For the hathe made the rare and lose partes called karnelles to be as emunctories for the noble partes. As the karnelles behynde the eares, serue to the brayne. Under the armpittes scrupnge to the spirituall members. And the karnelles in the grynes doth receyue the superfluities that commeth from the liuer, whan as it doth eronerate and purge it selfe, and this is moste manifest in pestilentiall constitutions in whyche theys noble members thurst and expell the benome to there purgien places.

Iohn

Iohn Yates. As for Mentagra you nede not to speake of, for I knowe ryght well, it is no other thynge then Morbus gallicus, or Chamęleontiasis, as the booke bearynge the name of Mentagra doth testifye.

Tho. Gale. And yet bothe you and the authour of that booke doe herein mysse the quishynge, as suer as you make your selfe of thys. For thys tumour whych Plinius calleth Mentagra, & impetigo in Greeke Leichin sprange first amōg the Italians in the time of Tiberius and is a deformitie of the skynne beginnyng for the more parte at the chynne and wyll spedelye turne into leprye and caste of skales lyke fyshe. And Galen wytnesse in the v. boke & v. Chap. Secundum loca. That impetigo wyl turne into Lepram. Therefore what difference is betwixt Mentagra and Chamęleontiasis it is easely conceyued, the one hauing Causam occultam as I may terme it, and the other manifestam.

Iohn Yates. And what Judge you epiplocele to be.

Iohn Feild. I wyll not onelye speake of that, but also of thother kindes of hernia, which foloweth nexte. And fyrste you must note that epiplocele is a Greeke worde compounde of

epepleon

epiploon whiche the latinesses call Omentum and we name it the caule, and cele which signifieth ramex or hernia. So that epiplocele is a tumor comyng whan as omentum falleth in to the purse of the testicles. And by the lyke reason Enterocele taketh name, when as the intestines falleth into the forsayde place. And Enteroepiplocele folowth whan as bothe Omentum and the intestines fall in scrotum, or purse of the testicles. Furthermore Bubonocele is a tumor called in latyne inguinis ramex and happeth whan as Peritoneum is ruptured or wounded by the flankes. Exomphalos is a tumour perteining to the ouertwart muscules of abdomen, which being relaxed ther folowth a sterting or empnency of the nauel.

Tho. Gale. My brother Yates doth the redierly conceyue the differences of these kynde of Hernia, for that he hathe a peculer waye of curyng some of them, especiallye of Enterocele or Hernia intestinalis, as Guido tearmeth it wherefore we wyl no lenger stande in vttering the differences of them, but procede to arthritis Podagra & Chiragra. For I thynke the daye wyll scarslye suffyce to declare, that whyche yet remayneth, and therefore as touchynge Arthritis you shall note and consyder that it

is a

is a tumour commyng of the flure of humors into the Joyntes: and is named in Latyne morbus articularis . And so is thys tumour common to all the Joyntes of the bodye except it be the handes and the feete.

Iohn Feilde. Yea for yf thys flure happeneth to the handes, it is named Chiragra. And yf to the feete, then it is called properly of the place, Podagra.

Iohn Yates. Theys dyseases of the Joyntes be greuous and paynefull, haue they no other cause but the flur of humours?

Tho. Gale. The flure of humours is but the interne or antecedente cause, whyche commeth of the primatyue , but it is no part of our myndes to sette out eyther the causes sygnes, or curation, of tumours, seynge that wee haue done that in oure booke of the methodicall cure of tumours agaynst nature.

Iohn Yates. Seynge that you haue nowe spoken of all the notable and famous tumours agaynste nature , I praye you turne your talke to woundes, whyche Auicenne and those that folow him calleth Plaga.

Iohn Feilde. Before we enter further herein to sette oute the differences of woundes , it is conuenente to knowe what a

wounde

wounde is. and the moste parte of writers doe agree that a wounde is the solution of continuitie newly made in the partes of the bodye with out putrifaction or matter.

Tho. Gale. Yea for whan as putrefaction or matter doth folowe, then it leuyth the name of a wounde and is called an vlcer.

Iohn Yates. And maye a wounde degenerat into an vlcer?

Tho. Gale. Yea for sothe, and so dothe mooste partes of woundes especiallye if they be greate and in suche partes as may not be cured wyth balmes.

Iohn Yates. And howe many differences be ther of woundes?

Iohn Feild. Many, but the chefe & principal and that also are necessarie, are numbred to be three, and we wyll showe you wherof the differences spryngе.

Iohn Yates. Doe you so.

Thomas Gale. Guido and other famous writers of his tyme, taketh the difference of woundee of three thynges. The firste is taken of the nature of the parte, in which the wounde is made. The seconde difference springeth of the substaunce or essence of the solution of continuitie. The thirde difference springeth of the difference of the diuisiõ, or solutiõ of cõtinuitie.

Iohn

Iohn Yates. And howe are the woundes called. those difference cometh of the nature of the parte in whiche that wounde is.

Iohn Feild. It is called a woundein the similer parte, and a wounde in the instrumentall parte.

Iohn Yates. Then to knowe theis woundes exactly it doth behoue to knowe theis partes of the body whyche you called similer, and instrumental.

Tho. Gale. It doeth right so. and it is called a similer parte because it is simple and may be deuided in to like partes. and that also whiche is required to the constitution of the organicke or instrumentall partes. Suche partes of the bodye are flesshe, fatnes, arterye vayne nerue, tendon, ligament, bone, and such like. & those be named instrumentall partes, whiche are made of theis simple or similer partes. And the instrumentall partes are the heade, eye, nose, tungue, harte, lyuer, longues, armes, feets, and a greate numbre of suche lyke, and euery of theis partes haue ther seuerall vse and office, as more largelye appeareth in the booke of Galen intituled de vsu p rtium.

Iohn Yates. And howe manye sondrye woundes are ther in the similer partes.

Iohn F ild. Ther be three, whiche are taken

taken of the substaunce of the similer partes.for it maye be in the similer parte whyche is softe as woundes made in the fleeshe,and fattenes, or elles in the harde symiler parte,as woundes in the bones, or fynally it maye happen to the meane similer parte,whyche is neyther harde nor yet softe, suche be those woundes in the vaynes arteries nerues tendons & ligamentes.

Iohn Yates. And what difference is there of the woundes in the organike or instrumentall partes?

Tho.Gale, There is a threefoulde difference of those woundes accordyng to the parte affected. For eyther the wonnde is made in the principall partes,as in the harte, lyuer,or bryane: or els in those partes whych serue theis principal partes,as woundes in Aspera arteria, the throte, and bladder. Or it is in the organike partes which are not seruisable,to anye of the principall,as woundes happenynge in the nose,eye,eare,hand,foote,and such like.

Iohn Yates. Then there be syre differences of woundes taken of the nature of the parte, three in the simpler,and three lyke wyse in the instrumentall partes. Nowe lette me vnderstande the difference of woundes taken of the essence of the solution of continuitie.

Iohn Feilde. There is a twofoulde differance

tence. for eyther it is a symple wounde, or elles it is a componnde wounde.

John Yates. What is a simple wounde?

John Feilde. A symple wounde is solution of continuitie, newlye made beynge voyde of accydentes or other affectes wyth it complycated and ioyned.

John Yates. And what is a compounde wounde?

Tho. Gale. The contrarye to a simple wounde. For it is solution of continuitie haupnge one or meze affectes and accidentes complicated and Joyned with it.

John Yates. You haue nowe showed two kyndes of woundes the one taken of the nature of the wonnded parte, the other of the essence of the solution of continuitye, there yet remayneth to set oute, such as spzinge of the pzoper difference of solutiou of continuitie.

Tho. Gale. There doth so as you saye. And the pzoper differences are taken of twoo thynges. That is to weete of the quantity and of the fygure?

John Yates. And howe be the woundes named, whyrhe haue there dyfference of qnantitye.

Tho. Gale. They are called by these names, a great or litle wounde; a long or shozte

wounde

wounde: a brode or narrowe wounde, a deape or shalowe wounde; and an equall or els an inequall wounde.

Iohn Yates. And how be those woundes named whiche are taken of the figure of the wounde?

Iohn Feilde. They be thus termed. a right wounde an obliquike or croked wounde, and a retorte wounde. There are besides theis three principall differences of woundes: other woundes, although they be not proper. as a wounde disrupted or broken, a wounde whiche is cutte, a wounde partlye broken, and partlye cutte: also, a wounde in the begynnyng, middes or ende of a muscle, and suche like, but theis differences alredye numbred shall suffice, as touchynge the Institution of a Chirurgian in this parte.

Iohn Yates. I suppose no lesse. but what vtilitie springeth by knowing theis differences of woundes?

Tho. Gale. Right great, for you shall not rightlye and methodicallye cure them, excepte you knowe ther differences. For of them is taken the prognostications, the intentions curatiue, the inuention of medicines, and maner of curation. for you wyll not a like prognosticate lyfe & death to the pacientes, of a simple

and

and wounde made in the flesshe. and of a greate wounde made in the ventricules of the brayne.

Iohn Yates. That is verelye so, for the one is with out perill and danger, and the other euer mortall and deadlye. Although Galen affirmeth that his maister Pelops yet beynge a lyue) he sawe a younge man wounded in one of the former ventricles of the braine, and that he was restored to helthe.

Iohn Feild. In dede those wounes for the more parte are deadlye. and wher as Galen in his. viij. booke de vsu partium, reherseth that historie, he maketh it miraculous, and that the yonge man came to helth, rather by the goodnes of God then helpe of art. But let vs returne from whense we are digressed. A grene and shalow wounde voyde of accidentes, haue not the same curatiue intentions, that a deape and holowe wounde hath, with whiche is also annired inflamation, flur, dolour, and payne.

Iohn Yates. That is more clearer then sonne at myd day, as the sayng goeth.

Tho. Gale. And touchinge the inuention of medicynes howe saye you, wyll you inuent like for woundes in the nerues and ligamentes, that you wyll for those in the flesshe? or in woundes of the brayne, that you wyll in woundes of the handes?

Iohn Yates. No verelye, no: I thynke none so rude that will so offende.

Iohn Feilde. I pray God ther be not. but to the right vse of medicines taken of ỹ difference of woũdes, wolde you in a wounde in whiche is inflammation, and deperdition and losse of flesshe, aplye incarnatiues to cease inflammation or contrarye wyse?

Iohn Yates. That ware a pointe of extreme demency and madnes.

Tho. Gale. Well then this last vtilitie springing of the difference of woundes showeth you howe to aply your medicynes, and whan also, whiche must be first, and whiche nexte.

Iohn Yates. No man can that denye. Wherefore seinge, that we haue passed ouer the differences of wounds, it folowethe nexte in order that we doe procede to vlcers.

Iohn Feilde. And that you may the better vnderstande those thynges whiche hereafter shall folowe, it is requisite to lerne firste what an vlcer is.

Iohn Yates. Then I praye you define what an vlcer is.

Iohn Feild. An vlcer is defyned to be the solution of vnitie in the fleshye partes, hauyng more dispositions lettynge and hinderinge the agglutination of the same, of whiche cometh

matter

matter, and other lyke fylthines.

Tho. Gale. You may also briefly define it, folowyng Auicen, in this maner, an vlcer is the solution of continuitie made in the flesshe, contеynyng matter and pus.

Iohn Yates. And whereof are vlcers ingendred?

Tho. Gale. They spring of woundes yl handled, of puskules, and apostumes comyng to vlceration.

Iohn Yates. And doeth vlcers spring of woundes?

Iohn Feild. They doe: for whan as a wounde doeth ons conteyne matter, it is no more called a wounde, but an vlcer.

Iohn Yates. How many kynde of vlcers be they?

Thomas Gale. Ther be two kyndes, a simple vlcer, and a compound.

Iohn Yates. And what is a simple vlcer?

Tho. Gale. A simple vlcer is a solution of continuitie, wyth matter, voyde of accidents and complication with other affectes. and here you must note accordynge to our supposition, that whan I saye a simple vlcer, I meane not one simple infirmitie or sycknes: for I am not ignorant that euery vlcer doth consist of intemperatnes, solution of continuitie, and som-

tyme also of yll composition. And therfore whan I speke of a simple vlcer, I meane that whiche is oppolite or contrary to that vlcere, whiche is complicated with many affectes.

Iohn Yates. Then by youre wordes I gather, that a compounde vlcer is solution of continuitie in the flesshe hauynge matter, and diuers affectes with it ioyned. Nowe I praye you let me vnderstande howe many differencis there be of vlcers.

Iohn Feilde, The most notable vlcers are. vj. in numbre.

Iohn Yates. Whiche be they?

Iohn Feilde. Their names in Latine be theis vlcus sanioſum, virulentum, ſordidum, cauernoſum, putridum & corrodens. And we must by circunlocution make them playne vnto you, for the deffecte of apte wordes in our language.

Iohn Yates. And can theis haue no other names?

Tho. Gale. Yes forſoth.

Iohn Yates. Howe many wayes?

Tho. Gale. Fiue principall wayes.

Iohn Yates. Whiche are they?

Tho. Gale. Firſte an vlcer may be named of humours, nexte of ſanies or matter, then

of

AN EXCELLENT TABLE DECLARING
the differences of vvoundes.

The principal difference of vvoundes are taken of thre thinges: that is to say.

1. of the nature of the parte in vvhiche the vvounde is made: as in.
   - Similer part, of vvhich ther are iij. differences. for it is ether in
     - 1. Soft parte as in
       - flesshe
       - fatnes.
     - 2. Harde parie. as in
       - bones
       - Ioyntes
       - vaynes
     - 3. Neither softe, nor harde, as in
       - Arteries
       - Neruys.
       - tendons
       - ligamentes.
   - Instrumental part. so is it eyther in the
     - 1. Principal parte. as in the
       - Harte
       - liuer
       - brayne.
     - 2. Seruing the principal partes as in
       - Aspera arteria
       - throte
       - Bladder
     - 3. Not seruing the principal partes.
       - Nose
       - Eye.
       - Hande
       - Fotte. &c.
2. of the essence of solution of contjnuitie.
   - Simple vvonde.
   - Compounde
3. Of the difference of solution of continuitie as of
   - Quantitie and the vvounde is called.
     - a great or litle
     - a long or short
     - a brode or narrovv.
     - a deape or sholovv.
     - inequal or inequal
     - Vvounde.
     - Vvounde. &c.
   - Figure as
     - a croked or oblique
     - a retorte

Place this table after. 28. leaue. of the Institution of a Chirurgian.

then of accidentes, after of the sycknes, last, of similitude with some lyuinge thyng.

Iohn Yates. Whiche waye name you vlcers of humours?

Iohn Feild. Those whiche spринge of blode are called sanguine, of choller, choloricke, of fleume flegmaticke, and of melancholie, melancholicke.

Iohn Yates. And howe are they called whiche come of sanies or matter.

Tho. Gale. You muste note that vlcers be named of sanies, foure sundry wayes.

Iohn Yates. Howe so?

Tho. Gale. Because sanies is called by foure names,

Iohn Yates. Whiche be they?

Tho. Gale. Sanies, pus, sordicies, and virulentia, and hereof cometh that of sanies, the vlcer is named a sanious vlcer, of pus, a purulent vlcer, of sordicies, a felthie vlcer, and of virulentia, the vlcer is named a virulent vlcer.

Iohn Yates. Before you procede further here in, I praye you define me what sanies or matter is.

Iohn Feild. Sanies is a nourishement corrupte, whiche nature coulde not digeste. and note that ther is twoo kyndes of sanies, good and laudable, and also yll and nought.

Iohn Yates. What call you good matter or sanies?

Iohn Feild. It is called good whan as it is whight in coulour, lyght and equall, voyde of stincke and horrible smell, and is also digested.

Iohn Yates. And what define you yll matter or sanies?

Iohn Feilde. It is that whiche is contrary to the good. A corrupte norishement in which the substance is inequall, indigested, yll smellinge, and diuerslye discolored.

Iohn Yates. What is that you call pus, of whiche the vlcer is named purulent.

Tho. Gale. It is yll matter or sanies commynge of norishement and superfluites of the weke membre, whiche tendeth to corruption, throughe the naturall heate altered into an vnnaturall state.

Iohn Yates. I praye you let me learne what virus is.

Tho. Gale. It is subtile and thinne sharpe sanies, ingendred of thinne watry humours, whirhe throughe the aboundaunce, the heate can not digest and ouercome.

Iohn Yates. Ther yet remayneth to speke of that kynde of sanies whiche you called sordicies.

Iohn

Iohn Feilde. It is grosse matter ingendred of the grosnes of humours.

Iohn Yates. Well, nowe retorne againe to the names and appellations of vlcers. Nowe I praye you are vlcers called after accidentes, whiche the grekes cal Symptomata?

Tho. Gale. It is called of corrosion a corrodynge vlcer, in greke Phagedenicum, of putrifaction vlcus putridum, of dolour and payne, it is called vlcus doloroſum.

Iohn Yates. And how is the vlcer called of sycknes.

Iohn Feild. It is called in this maner of cancer a cancerous vlcer, so in like maner of fistula the vlcers is called fistuloſum or vlcer fystulate.

Iohn Yates. Seing you are come to that talke of a fistula in knowledge of which, & also exacte curation you are not a litle commended; I pray you define what a fistula is.

Iohn Feilde. It is an holow and depe vlcer hauynge a straight orifice. and the halownes of the same is harde, out of which many tymes floweth matter, & the fistula hath manye denominations accordyng to the place in which it is, for whan it happeneth only in ỹ flesshe, it is

called fistula carnosa, in the vaines venosa, in the arteries: arteriosa: in the nerues or sewowes neruosa, in the cartilagies cartilaginosa in the muscules musculosa, in the bones ossea, and also of teares and droppis whiche it putteth fourth, it is nampd fistula lachrimalis, so in Ano it is called fistula Ani.

Iohn Yates. Well nowe turne we againe to the last parte of the deuision and showe me howe vlcers are called of similitude.

Tho. Gale. I will, the ante or phishmere in Latine formica crepeth and maketh holes. and of like sorte, the vlcer whiche crepith and maketh manye holes in mans bodye, is hereof termed formicosū vlcus. and also of the holow caues of the grounde called cauernæ, the holow vlcer is named cauernosum: and so in like sorte of other thinges, for of the similitude the vlcer taketh name.

Iohn Yates. I here you not make anye mention of those famous and notable vlcers called Teliphea and Chironia vlcera. neyther can they be comprehended vnder any of the. vj. principal kyndes of vlcers.

Tho. Gale. Yes forsoth, but Galen whō I folow, accompteth those differences of Teliphea and Chironia vlcera, superfluous, and be

comprehen-

ce this table

A profitable Table of vlcers.

Euery vlcer is either.

- Simple
- compounde

and the names vvith difference of theis, springeth. v. bndry vvayes that is to say of

- 2. Humours so le ther iiij.
  - blod
  - coller
  - fleume
  - Melancholie

  and are called of them
  - Sanguine
  - colericke
  - Flegmaticke
  - Melancholike

  Vlcers.
- 1. Sanies & the vlcer is called hereof by iiij. names for of.
  - Sanies
  - Pus.
  - Sordicies.
  - Virulentia.

  the vlcer is named
  - a Sanious
  - a purulent
  - a filthye
  - a virulent.

  Vlcer.
- 3. Accidentes or symptonata. as of
  - corrosion
  - putrifaction
  - dolour

  the vlcer is called
  - 1. a corroding or phagędenical vlcer
  - 2. vlcus putridum
  - 3. vlcus dolorosum.
- 4. Of sicknesse as of
  - intēperaties
  - inflāmation
  - Erysipelas.
  - Cancer
  - fistula

  and taketh to name
  - Dyscratum
  - Phlegmonosum
  - Erisipelatosum
  - Cancrosum

  vlcus.
  - fistulosum
- 5. Similitude as of
  - formica
  - cauerna

  it is called
  - formicosum.
  - vlcus
  - cauernosum
  - vlcus.

  vlcus. & hath diuers names according to the parte it is in as in the
  - 1. Fleshe
  - 2. Vaines
  - 3. arterie
  - 4. nerues
  - 5. cartalage
  - 6. bones

  called
  - carnosa
  - venosa
  - arteriosa
  - neruosa
  - cartilagi-(nosa
  - ossea.

Place this table in the Institution. fol. 41.

comprehendeth them vnder the name of phagedenicum, or corrodens vlcus. Therfore we may aptly place them among corrodyng vlcers, whiche is the fyrce kynd of the notable vlceres before rehersed.

Iohn Yates. And be all theis kyndes of vlcers of like facilitie in curyng?

Iohn Feild. No verely, for ther be some which are easelie cured, & other also whiche will hardlye or not with out great difficultie receiue curation.

Iohn Yates. Whiche be those that wyll easelye be cured.?

Iohn Feild. Such vlcers as happen in persons of good complexions, whose bodies are norished with good blode, & haue no abundance of superfluous moistnes. for Auicene saith that in bodyes of the beste complexion, the vlcers are more spedely healed.

Iohn Yates. Whiche vlcers are harde to be cured?

Tho. Gale. All those vlcers whiche sofoweth after any sycknes.

Iohn Yates Wherfore shold those vlcers be so rebellious, and hard to receyue curation?

Tho. Gale. Bycause nature doeth eronerat & vnburthen her selfe of the dregges and reliquies of yll, and vicious humours.

Iohn

Iohn Yates. Are ther no other vlcers: but theis that be harde to cure?

Iohn Feilde. Yes, and suche be all vlcers whiche happen to persons hauyng accidentaly there bodyes moist or drye.

Iohn Yates. Gyue me an example of those bodies whiche accidentally are moyst.

Ihon Feilde. You nede no other example to set before youre eyes, then persons hauynge dropsies, and women with childe. where vlcers happen in such bodyes they, wil not cicatrize because of aboundance of superfluous moysture.

Iohn Yates. I thynke it so. But if that the greate moystnes, do let the vlcer to be cured: thē in bodies that be drie, it foloweth the vlcers to be easelye healed. Howe happeneth it, therfore that you affirme vlcers in drie bodyes to be harde of curation?

Iohn Feild. And yet in theyse my wordes I do not committe anye errour. For I speake not simplye of all drie bodies: but of those that ware drie accidentally. suche be the bodyes of them that haue hecticke feuers, and marasmus. In theis the vlcers, for defecte of good bloode can not consolidate: but with greate difficultye.

Tho. Gale. And you haue also the lyke example in olde men whose vlcers wyll hardly

receyue

receyue cure for the defecte of good blood, they beinge not able, for the imbecillitie of naturall heate) to concocte and digeſt, ther meate.

Iohn Yates. Then by your wordes I do fynde: that in three sortes of people the vlcers will not wyth out difficultie be cured, that is to say in those, where vlcers folowеth greate sicknes, and in bodyes whiche are accidently moiſt, and those also which are likewise drie. Now before we fynisshe oure talke of vlcers, I woulde learne of you what putrifaction, corrosion, and digeſtion is. the knowledge of theis is ryght profitable in vlcers.

Iohn Eeilde. It is so, and note that, putrifaction accordynge to oure Authors Chirurgians, is defined to be a transmutation of the hole substance of the bodye or parte of the same, spryngynge of outwarde and vnnaturall heate: whiche beinge contrarye and deadlye ennemy, to naturall heate, doeth corrupte, and destroye the same.

Tho. Gale. And corrosion is a consumption of the flesshe whiche cometh through sharpe humours, whiche resolueth consumeth & dryeth the substance of the nouriſhed part: which being resolued the substance of the flesh is diminiſhed and vlcerated.

Iohn Yates. Theis two, putrifaction and corrosion seameth to be as you say, although for

want

want of naturall Philosophie I can not herein iudge, but it behoueth the lerner alwayes to beleue and credit the teacher: but what is digestion?

Iohn Feild. Digestion is takedin twoo wayes, one waye it is taken for an orderly distribution of the worke of naturall heate made for the augmentation and norishement of the partes. The other waye it is a disposition of naturall heate ordayned to the preperation of huhumours wherby the humours are made redie to be thrust oute by the vertue expulsiue. and this last waye is that whiche the Chirurgian ought to consyder.

Iohn Yates. Now you haue thus finished tumors against nature, woundes, and vlcers, it is tyme to intreate of fractures. Wherefore I praie you let vnderstande what a fracture it.

Tho. Gale. A fracture called in Greeke Catagma is a solution of continuitie made in the bone. But the later grecians as Actius and Paulus nameth a fracture, the diuision of the bone or els rupturynge or breakyng of the same or any solution of the bone violentlye comyng of any outwarde cause.

Iohn Feild. Yet Guido de Caulico and other of hys tyme defyneth a fracture to be solution of continuitie of the bone not comming

of euery

of euery cause, but onely whan as it commeth of contusion, and thys difference he putteth, for that sayth he a bone broken and a bone cut may be knowen a sonder. For because a cut bone is not to be properlye named a fracture, but rather a wounde in the bone.

John Yates. There is no greate repugnancie amonge them neyther let vs be curious aboute wordes, so the thynge whereof we intreate maye be euident and plaine. Wherfore I praye you showe me nowe how many kindes there be of fractures.

Tho. Gale, There be twoo kyndes of fractures. a simple fracture, and a compound.

John Yates. What is a simple fracture?

John Feilde. A symple fracture is solution or diuision of continuitie made in the bone wythout any other affecte ioyned with it.

John Yates, What is a compounde fracture?

John Feilde. It is also a solution of vnity made in the bone hauyng one or more affectes to it connected and ioyned.

John Yates. How manye differences be there of fractures?

Tho. Gale. You must note that lyke as there be symple and compounde fractures, so in lyke maner there be differences of fractures both

both symple and compounde. Wherefore lette me knowe of whych fracture you woulde knowe the difference.

Iohn Yates. I woulde ryght gladly vnderstand all the differences, although for want of knowledge I can not orderlye demaunde of you. Wherefore, I praye you fyrst to begynne with the differencies of symple fractures, and then to the compounde.

Thomas Gale. That we wyll gladly, and fyrste it behoueth you to consider that there be manye and diuers kyndes of symple fractures. For some fractures are ouerthwart and diuides the bone in sonder and they are three, Cauledon Raphanidon, Sicyedon, that is to say the bones are broken like vnto the similitude of stalkes of herbes, radish, or cucumers. There are besides theis fissures or ryftes made in the bone longwyse called in Greeke Schidacidon. Also there is an other kynde of symple fractures whan as the bone is broken into manye small and lyttle peeces, and this is named Alphitidon. Theis be the principall differences of simple fractures.

Iohn Yates. And what are the differences of compound fractures?

Iohn Feilde. The chefe and notable being accompanyed with sycknes and accidents are theis, a fracture with a wounde, a fracture hauinge

hauinge wyth hym ioyned gangrena, a fracture with inflamation, a fracture with dolour and payne, a fracture with cõtusion, a fracture with callus to muche increased and growne, a fracture with to muche dryenes, and also hardnes of callus. and a fracture with superfluous moysture of callus, and suche like.

Iohn Yates. Are ther no other kyndes of fractures besides theis two simple and compounde?

Tho. Gale. There be no other proper kyndes. for of necessitie, it must be eyther simple or compounde, and Galen maketh but twoo kyndes of simple fractures, a fracture made secundum longitudinem, and a fracture made per transuersum. But Cornelius Celsus addeth the thirde difference to it; his wordes are theis lib. 8. cap. 7. omne os, modò rectum, vt lignum in longitudinem finditur, modò frangitur transuersum, interdum obliquum, &c. Whiche is as muche to saye, as euery bone is fractured eyther in length as woode cleauen, eyther it is broken ouerthwarte, and some tyme it is fractured oblique or crokid.

Iohn Yates. Albucasis nameth other kindes as fracture in cranio, a fracture in the Iawes, a fracture in the nose, a fracture of the spine of the backe, a fracture of ỳ fossiles, & so of other bones.

Iohn

so of other bones.

John Feild. He doth right so as you say, but in my opinion theis be no differences of fractures: but rather noteth the parte affected

Tho. Gale. That is moste manyfest and hereof we haue spoken in oure Enchiridion of Chirurgery, more at large, where we set oute the differences of fractures, and the eracte maner of curinge them. But becaase you may the suerer beare theis differences of fractures seurer in memorye, behoulde this table which setteth out all the diuisions of them, and if you take paynes to comitte them to memorye, then you haue in effect the whole theoricke of solution of continuitie, made in the harder partes of mans bodye.

John Yates. I thanke you syr, and I will not omit the greate profit, whiche wyll folowe for the present payne. For the gaine wyll remayne, whan at the payne shalbe quite forgotton. Nowe for the tyme of the daye whiche yet remayneth: finishe luirations, and what els you thynke conuenient, for the institution of a Chirurgian.

John Feilde. We wyll accomplishe your requeste, and first note that a luration or dislocation (which the grecians also call exarthrema) is a displacynge of the joynte, and mouyng of it out of

out of this natural seate into an other place vnacustomed wherby the voluntarie motion of the same is hyndred.

Tho. Gale. And this luxation is eyther perfit as whan the bones are quite diuided, and put a sondre, or els it is an imperfecte luxation, whan the Ioint is but only wrasted, and not altogether dislocated, this the Grecians call pararthrema.

Iohn Yates. Howe many kyndes of luxations are ther?

Iohn Feilde. There be twoo kyndes of luxations, a simple luxation with whiche there is no other affecte ioyned: and a compounde luxation haupnge one or more effectes to it connected and complicated.

Iohn Yates. What effectes be those whiche are ioyned with compounde luxations, or rather to speake properlye, what effectes doe make the luxation compounde?

Tho. Gale. The most comon are theis, a luxation with a fracture, a luxation wyth Pleghmone, a luxation with a wounde, a luxation with dolour, a luxation with hardnes, a luxation with flure, and so in lyke sorte you maye numbre other effectes, as they are with the luxation connected.

Iohn Yates. You haue nowe fynished youre talke touchynge the definitions and differences of tumours against nature, woundes, vlcers, fractures and lack of iurations. & among the rest you make three of them, to be solutions of continuitie, that is to say, woundes, vlcers and fractures: I praye you aunswere me, be ther no more kyndes of solution of continuitie then theis?

Iohn Feild. Ther is no solution of continuitie: but is comprehended vnder one of theis three. as you maye perceyue by the differences of solution of vnitie, set out in the. iiij. booke of Galens therapeutike methode.

Iohn Yates. I praye you reherse those differencies.

Iohn Feild. Ther is a solution of continuitie, left in the fleshye parte after a wounde called Thrauma. Ther is a solution called Helcos, wher as ther is an vlcer in the flesh, there is solution of vnitie in the bone named catagma. also spasma is a solution of continuitie in the nerue by conuulsion or distension, Apospasma is lyke wyse in the lygaments. Rhegma is a rupture of the flesh. There is also a solution of continuitie called contusion, in Greeke, Thlasma, and is properlye in the vesselles.

Theis

Theis are the principall kyndes of solution. But nowe seinge we haue plainly made discourse of all suche sycknes, as fall vnder that portion of the that curatiue parte, which is called Chirurgirye, whereby you are taught to applye contrarie remedies, for the expellynge of the fornamed greefes: it is requisite to vnderstande the operations, whiche a Chirurgian muste vse in obteynynge his desiered scope; I meane in restorynge helth to his patient.

Iohn Yates. I praye you then let me lerne what those operations are.

Iohn Feild. They in numbre three. First to diuide or separate the continuitie. secondly, to vnite and ioyne together, that is diuided and seperated. and laste of all to take awaye that is superfluous.

Tho. Gale. And we diuide the continuitie, by makynge incision, letynge of blood, and scarification: where as neade requireth. as also we vnite and ioyne together, that is deuided whan as we consolidate and conglutinate woũdes, whan as we heale factured bones causyng callus to growe out the fracture, & whan we repose and put bones lurated and dislocated into the natyue and wounted seate. Last of all we doe take awaye, that whiche is

superfluous whan as we take awaye tumours againste nature.as ganglia, Cancers, nodos, strumas,and wartes called achrocordonas, also takynge the water oute of the bodies of those whiche haue a dropsie: or takyng away the syxte finger or to a of the hande or fote.

Iohn Yates. All this I wyll kepe well in memorye.

Iohn Feild. The Chirurgian must also in theis his operations obserue sixe thynges principally. First, that he doeth it safelye, and that wythout hurte and damage to the patient. secondly, that he do not detracte tyme or let slepe good occasions offered in worckyng, but with suche spede as arte wyll soffer, let hym finishe his cure. Therdly, that he worke iently, courtyously, and wyth so lytle payne the patient, as conuenientlye you may, and not roughly, butcherly, rudlye, and wythoute a comblenes. Forthly, that he,be as free from crafte and deceyte in all his worckynges, as the East is from the West. Fiftly, that he taketh no cure in the hande for lucre or gaynes sake only, but rather for an honest and competent rewarde, with a godly affection, to doe his diligence. Laste of all, that he maketh no warrantyse of suche sicknes,as are incurable, as to cure a Cancer not vlcerate, or elephantiasis confirmyd: but circumspectly

cumspectlye to consider what the effecte is, and promyse no more then arte can performe: and you shall doe theis thynges muche the better, (yea wyth oute theis, you can not any thynge profit your pacient) yf you understande the maner, and eracte wayes of stichynge woundes, of makyng tentes, splanes, stuphes, bolsters, and conuenient rollynges, wherfore if the day will therto suffise, we wyll declare and make playne theis thynges vnto you, and so finishe our talke of the institution of a Chirurgian.

Iohn Yates. I praye you let no tyme be herein lost, for lothe I ware to departe with out the knowledge of them, and for that you first made mention of stichynge, I pray you first begynne wyth it.

Tho. Gale. Then you must well marke and diligentlye consyder, that ther are three kyndes and maners of stichynge takynge names of ther effectes. The firste is called conglutinatiue or incarnatiue, the seconde is named compressiue, the thyrde is reseruatiues of theis, we wyll orderlye intreate, and first touchynge incarnatiue stichynge, note that the vse of it is in all grene and freshe woundes made in the fleshe, whose lyppes or sydes can not be conserued and kepte to gether, onlye wyth rollinge and ligature,

Iohu

Iohn Yates. And maye not this kynde of stichynge be vsed also in olde woundes?

Tho. Gale. Yf you wyll vse it in olde woundes whose lipppes are harde and thicke it behoueth you firste to make scarification of sayne aboughte, and so let blood flowe oute, and then you may vse it. and note that ther are .ii. sundry kyndes of stichynge incarnatiue.

Iohn Yates. Whiche are they?

Tho. Gale. I wyl set them out vnto you. The first kynde is done wyth an euen stronge and softe threid of sylke, makyng the first stiche in the myddes of the wounde, then the seconde stiche in the mydde space betwyxte the firste stiche and the one ende of the wounde, and the threide stiche shalbe lyke the seconde in the other syde of the wounde. And so euer betwyxte two stiches in the myddes, take an other vntyll the sydes of the wounde be aptlye and decentlye ioyned together. And you must also take hede, that your stiches be not to thicke or thynne set. For yf they be to thycke, you shall as Celsus sayethe, prouoke dolour and payne, and cause inflammation, and if they be to thynne and rare, then it can not conteyne the sydes of the wound to gether. The seconde kynde of incarnatiue stichynge

is vsed

is vsed in greate woundes of the thels and shoulders: and is in this maner. Joyne the sydes of the woundes together, and marke howe many stiches it requireth, and for euery stiche you muste prouide a nedly and a threid, and put a nedle in the myddes of the wounde, and wynde the threid rounde abought the nedle many and sondry tymes, and the nedle remayne styll in the wounde, vntyll the consolidation of the same. You must in lyke sorte doe wyth the other stiches, whyche are to be made, accordynge to the quantitie of the wounde. The theird kynde of incarnatiue stichynge, is done wyth quylles or rolles made of stupes in the bygnes, and forme of quilles, beinge writhed, and made euen and smothe. And this waye of stichynge is thus, You shall drawe the sydes of the wounde to gether, puttynge your nedle and threid throughe bothe sydes of the wounde, and agayne put the nedle backe agayne throughe the same hole, and so leaue a loupe of the threid behinde, into whyche you shall put the one ende of the quylle, then drawe strayte bothe endes of the wounde to gether, and fasten them to the other ende of the quylle, and cut of the threyde, and let the quylles so remayne vntyll the wounde be

perfectlye healed. The forthe kynde is done by hookes, greate or lytle, accordynge to the bygnes of the wounde, & the hokes must be crocked and bowed at both endes. You shall faste an hoke on the one syde of the wounde, and drawe the other ende towarde thother syde, in whyche you shall fasten the other hooke. This kynde requyreth no violence, but only serueth wheras the wounde wyll easelye come to gether.

The fyfte and laste kynde of stichynge is wyth clothes therecognozed being of suche bygnes, as maye suffise for the hurte membre. whiche kynde of stichynge is very conuenient in those woundes where as we wyll not haue the cicatrize to be seame, as in the face. and theis clothes muste be wette in some viscouse, and glutinous lyniment and laye them to on eyther syde of the wounde, and whan they be dryed, you shall make youre stiches in the clothe conuenientlye, and aptlye, and so ioyne the sydes of the wounde together, and theis be the fyue kyndes of incarnatiue stichynge.

John Yates. Ther be twoo thynges touchynge theis stichynges that I muste require of you. The one is what maner a neole we muste vse in oure stichynge: the other wyth what thynges we shall make oure linyment whyche must be extended on the lynynge cloth vsed in the fyfte kynde of incarnatiue stiching.

John

Iohn Feilde. The nedle muste be longe and smale, beinge threesquare, the eye holowed in, that the threid maye the easelyer folowe. to the whiche neadle ther muste be a quille made holowe, called in latyne canulla, this serueth to holde the sydes of the wounde to gether stedfastlye whill you make your stichynges. as touchyng the matter wherof you shall make your liniment, it consisteth one myrrhe, frankensence, sanguinis draconis, mastick, sarcacolle, pich, mylldust, al theis, or parte of them, must be myxed wyth the whight of an egge, and so extended on the clothes.

Iohn Yates. This I vnderstande ryght well: wherfore procede to the seconde kynde of stichyng whyche you call compressiue.

Tho. Gale. That stichynge whiche we call compressiue vsed to staye and stanche greate flure of blode, is in thys sorte. foulde in the sydes of the woundes, as the skynners vse in sowynge ther skynnes: and stich the, mouer castyng them. and we vse this also in woundes of the intestines, and panicles wounded. But this kynde of stichynge, in my opinion is not so good and safe, for that if one stiche breake all the other are losoned.

Iohn Yates. Then I praye you procede to the thyrde kynde of stichynge, called reseruatyue.

tiue.

Iohn Feilde. This laste kynde serueth onely to kepe the sydes of the wounde to gether vntyl it be made hole. and is in lyke forme, as other comon stichynges, sauinge that the sides are not so straite drawne to gether, as in other woundes. and is right good in woundes ruptured and torne, and whereas thynges are afterwarde to be taken out, and whan as the wounde must be purged, and this shall suffice touchynge the knowledge of stichynge, ther be other inuentions and wayes of stichyng, which are to be lerned rather be seinge the connynge Chirurgian worke, then by many lynes set out in bookes.

Iohn Yates. Then I praye you procede to lynimentes and tentes.

Iohn Feild. Tentes, and lynimentes to be profitable, no man sene in Chirurgerie douteth. but at thys present, it shalbe sufficient to shewe whan, howe. and to what endes, they be vsed: and also of what matter they are made, and of ther diuers formes.

Iohn Yates. I pray you vnto howe many endes doth it serue?

Iohn Feild. Vnto .viij. sondry vses.

Iohn Yates. Whiche are they?

Iohn Feild. Firste we vse tentes to en-

large

large and ampliate a wounde, or to mundifye the same, and wheras matter and sanies is to be taken oute of deape woundes. Secondlye we are constrayned to vse tentes in profounde and deape woundes, whiche of necessitye requyre a newe regendrynge of flesche. Thirdlye in woundes whyche through the ayre are altered, and therfore are made fylthy and sanious, and require mundification. Fortlye we muste vse them in contused woundes. Fyftlye the vse of them is ryghte profitable in woundes, that hath inflammation or are any tumour agaynst nature ioyned wyth them. Sextly, in woundes whiche come of bytynge. For suche woundes are not spedelye to be conglutinated; but rather kepte open. for that (yf we beleue Cornelius Celsus) all bytynge dothe participate of venome: and therfore that must be drawen oute, and not kepte in throughe to haskye cicatrizynge of the wounde. Seuenthly, we occupye tentes and lynementes in those woundes, in curynge of whyche we muste handle the bones. Last of all, we vse tentes in olde woundes whyche are digenerated into the nature of vlcers.

Iohn Yates. Seynge you haue showed to what endes tentes serue; I praye you sette

out

out the matter and substance wherof they doe consiste.

Tho. Gale. For the better understandynge hereof it behoueth to consider, for what cause and intention they are made. for some tyme they be vsed to clense and purge the wounde, and then they are made of softe and olde lynnynge clothe, some tyme they are vsed to kepe the wounde open and wyde, and then they are made of stupes cleane & well kempte, or els of coton woll. And for that cause also ther are tenles made of siluer or copper, beinge made holowe, and put into the wounde. as for examples sake, in woundes of the nose, wherby he maye both aptly drawe in the ayer, and also the wounde be purged of suche fylthynes as groweth. Further more whan as we wyll ampliate, and enlarge a wounde, than we make tentes of spongies, or the roote of the gentian. for theis suckynge the moysture in the wounde do therewith swell and ware bigger, wherby the wounde is inlarged. And as touchynge the forme and figure of tentes, they are made long, shorte, bygge, and litle, accordyng as necessitie require but. yet this is generall, that all tentes be made bygge at the one ende, and lesser euer towarde the other: lesse that they might slyppe into deape woundes. and theis tentes are somtyme dipped in vnguentes, and somtyme put into

into the wounde or vlcer drye, accordynge as occasion is offred, and this shall suffice, touchynge tentes, ther vse, forme, and matter on whiche they are made.

Iohn Yates. Boulsters folowyth nexte.

Iohn Feilde. Boulsters called pulvilli or plumacioli, are muche profitable and necessarie in woundes: for they compresse the membre diuided, and norishe, and conserue naturall heate, and keape the membre from the wayte and payne of the rollers. and in the olde tyme they vsed to sowe betwyxte two cleane and whight lynnynge clothes, fethers, and so made bolsters, whyche they vsed as is aforesayde. But for because they ware compelled eftsones, & often to alter ther boulsters, beynge wexied throughe continuall makynge newe, they inuented to make boulsters of stepes, made with flaxe, somtyme they make theis bolsters of woll or cotton fynly carded, and nowe it is in comon vse to make boulsters of fyne and softe lynnyng clothes thrise or more timmer dubled, as necessitye requireth. also manye do make and ordayne boulsters of spongies. of theis boulsters some be applyed wette, and some be vsed drye, and there be for the more parte. vj. kyndes of boulsters.

Iohn Yates. Whyche are they?

Tho.

Tho. Gale. Retentiue, conglutinatiue, expulsiue, restrictiue, confortatiue & conseruatiue. Theis take theis names of ther vse and office. for those bolsters whiche be retentiue serue in wounds, for to stanche blod, being but lytle and smale, and layd on a stupe or splegiant miryd with the whight of an egge, and some restrictiue medicine. The conglutinatiue bolster serueth to kepe the sydes of greate woundes to gether, after that they be stiched, and the forme of theis boulsters accordynge to Auicenne is threcornerd, and so adapted to the member that one of the corners of eyther bolster lay on the wounde. The expulsiue bolster is ordayned to put out matter or sanies in vlcers and woundes, whiche be depe and holowe, and theis be made eyther of lynnynge clothe, or els of spongies. The restrictiue boulster is made of lynnyng clothes dubled twoo or three foulde dypte in wyne or vineger, or other decoction, and so wronge out and layde on eyther syde the wounded parte: and this doeth restrayne the flure of humours flowynge to the parte, and kepeth backe inflammation and other accidents, whiche myght infest and grefe the weake membre, and the vse of theis boulsters is rygbt profitable in fractured bones or lurations. The confortatiue boulsters serue to conforte and

strengthen

strengthen the weake membre and are diuersly made, some of fyne lynnynge clothes in whyche is sowed fethers, and this is made lyke a twilte, and serueth for the armes or legges to keape them warme, and norisshe natural heate. There be also some made of towe, whiche are accustomably vsed in woundes of the heade. Other are made of spongies, dipped in some hotte liquore, or oyle, and after wronge oute and applyed to the ioyntes and coulde partes: the conseruatiue bolster serueth in lurations, to kepe the membre reduced to his natural forme, in the same state. as the shoulder bone being reduced to his wounted seate, we laye a bolster vnder the arme, or as they comonly say in the arme pitte, and theis be the moste notable and vsuall kyndes of boulsters vsed in the arte of chirurgirye.

John Yates. If you in lyke maner make playne vnto me the maner of ligature and rollynges, I shal thynke my selfe satisfyed for this present.

John Feild. We will fulfil you requeste, and firste folowynge Auicenne in his fourth fen. of his forth booke, we make. iij. sondry sorts of ligature or rolling, that is to say incarnatiue, expulsiue, and retentiue. the incarnatiue or rather conglutinatiue, is vsed in grene woundes, or fractures. And the roller muste be

rolled

rolled vppe one both endes of the same, and the begynnyng of the ligature muste be on the contrarye, or oppolite parte of the wounded place, wyndynge the one parte of the roller, towarde the hyegher parte of the membre, the other towarde the lower parte. The breath of the roller muste be suche, as may couer all the wounde, besides some partes of the sounde flesshe. the roller muste be drawen strayter vpon the wounde, then in the other partes. but yet not so straite, as may cause dolour or payne, inflamation and flure of humors, and let the endes of the roller be stitched and solued, and not tyed on a knot. The seconde sorte of rollynge, called expulsiue, is properly vsed in olde and holowe vlcers: and this doeth expell the matter, and filthines gathered in the botome of the vlcer vnto the mouthe and orifice of the same. This is wyth a roller begynnyng at the lower parte of the affected membre, and so makynge the ligature straighte, and so procede to the vpper parte of the membre, makynge your rolling lesser, vntyll you come to the orifice of the vlcer.

Iohn Yates. Be not offended I praye you, though I seame to breake of your talke, and or you procede further, let me vnderstande what you call the hyer parte of a membre.

Iohn Feild. I call wyth Galen the hyer parte

parte of a menber that which is moſt neare the lyuer or hearte.

Iohn Yates. Then I pray you retourne to youre former talke.

Iohn Feilde. There yet remayneth to ſpeake of the thirde kinde of ligature, whiche is called retentiue, and this onelye dothe ſeruc to kepe on medicines on the wounde, vlcer, or part affected, and in apoſtemes and other yll diſpoſitions, and this is done with one onely roller beginninge firſte on the parte affected, and ſo proſede according to vſe, faſting the roller wyth ſtichyng, and this kynde of ligature muſt be done ſoftly, ientlynot to hard or ſtraightbut without doloure or payne, and muſt be loſed whan neceſſitie doth require. ¶ if that it fortunyth the roler to cleaue faſte to the medicine or mẽber, take it not away with violence, but wette it ſo longe with wyne made warme vntill it wil of the one accorde loſe and be taken away without griefe or payne, and note, that youre roller be made of fine and ſofte lynninge clothes, not to muche worne, and vnable to holde, let it be alſo of that length and breath, that the parte affected doeth require. as for example rollers, for ths thigh muſt be. v. fyngers in latitude. for the arme three fingers brode, for the finger the roller being a finger brode ſhall ſuffice, as touchyng the longitude or lengthe of the roller, it is to be

made as necessitie require, & occasion is offred.

Tho. Gale. Wel then, seinge that we haue ended this talke of stichyng, tentes, boulsters, stupes, and rollynges, we wyll here conclude for this present. for behoulde the sonne draweth farre west, and the tyme wyll scarse suffice for oure iorney homewarde, and what you heare doe want, you shall fynde in other of my workes. but in our goinge towarde the Citie, let me heare what you haue borne awaye of this dayes talke.

Iohn Yates. I will repete in briefe wordes so much as I can remember.

1 Firste whan as I met you in the morning, being in talke of Chirurgirye you shewed me what it was and gaue me therof diuers definitions.

2 Secondlye you proued it to be the thirde parte therapeutike and shewed the antiquitie and worthynes of the same wyth certayne noble princes and capitaines who exercised Chirurgirye.

3 Then you saide that Chirurgirye did consist of two partes, the one being called

called the theoryke, the other the practise.

4 After that you declaryed what was subiectum Chirugiæ the thynge on whiche the Churugian doth exercise hys arte and also what was the ende of Chirurgirie.

5 Further you sete out what maner a person he should be that muste learne the arte of Chirurgiry, and what condicions are in hym required, and what the cause was that there is so manye rude Emperikes and vnskylful professours of Chirurgirye.

6 Consequently you did make mencyon of the chefe and mooste necessarye instrumentes where with a Chirurgian oughte to be furnyshed, bothe metalline and medicinall with there proper office and vse.

7 Then you sete out the methode & way to be obserued in learning the art

of Chirurgirye and of the righte vse of instrumentes both metallyne and medicinall.

8 Nexte folowyth such syckenes as fal vnder the hands of the Chirurgian that is to say, tumors againste nature, woundes, vlcers, fractures, and luxations wyth the definitions diuisyons differences, and diuers names of euery of them.

9 After these thynges finyshed, you set oute certayne kyndes of solution of continutye taken out of Galen.

10 Also you sete out the operations of the Chirurgian, which are required in curing the forenamed greses & what thynges are herein to be obseruyd or fled.

11 Finallye you set oute the arte and maner of syching, tentes, plumacyes, stupes, boulsters, and rollynges: wyth there differencis, substaunce, sygure vse

and

and commodytye. theys seme to be the argumentes of this daies talke except I be deceyuid.

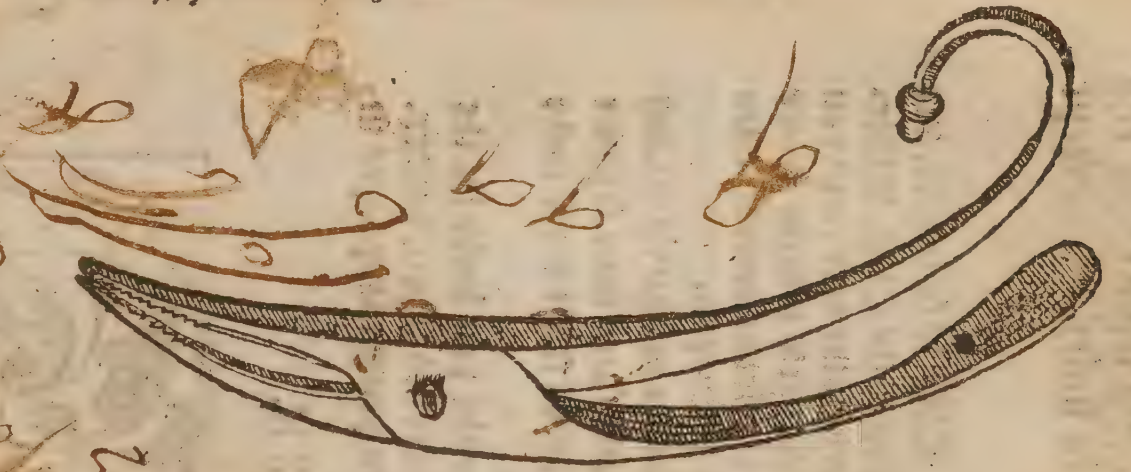
Thomas Gale. They be so indede, and now beholde, we be come to the Citie. Wherfore we wyll now leaue of talke here, and you both shall this night take parte of suche cheare as God hath sent me, and let vs recreate oure spi-rites, and be merye I pray you.

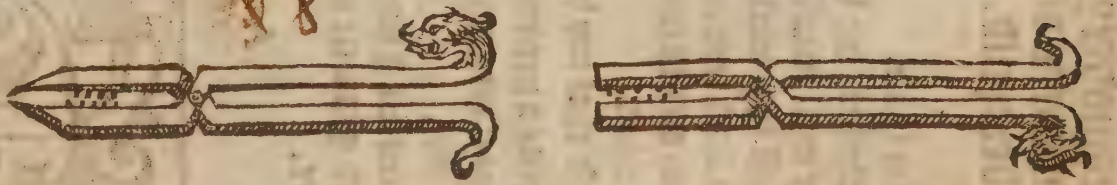
Iohn Feilde. I thanke you hartly syr, and I reioyse that my brother Yates haue so firme and perfite a memorye, God sende more suche to folowe Chirurgirye.

Iohn Yates. I thynke you bothe for the great benefice I haue receyued at your handes. and God graunte me to spende many dayes in this sorte.

AMEN.

The.ij.kynde of forceps called also Roſtrum Coruinum,or Serpentinum.

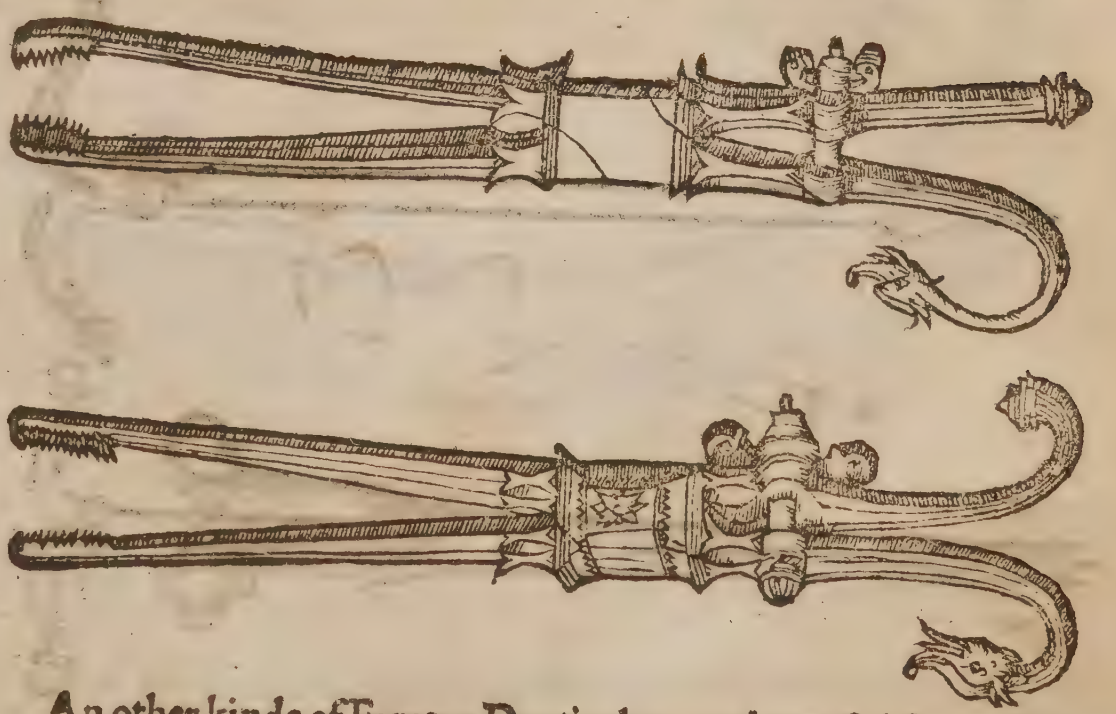




The first kyndes of inſtrumentes whiche are called forceps,ſeruyng to take out thyng fyxed in woundes.

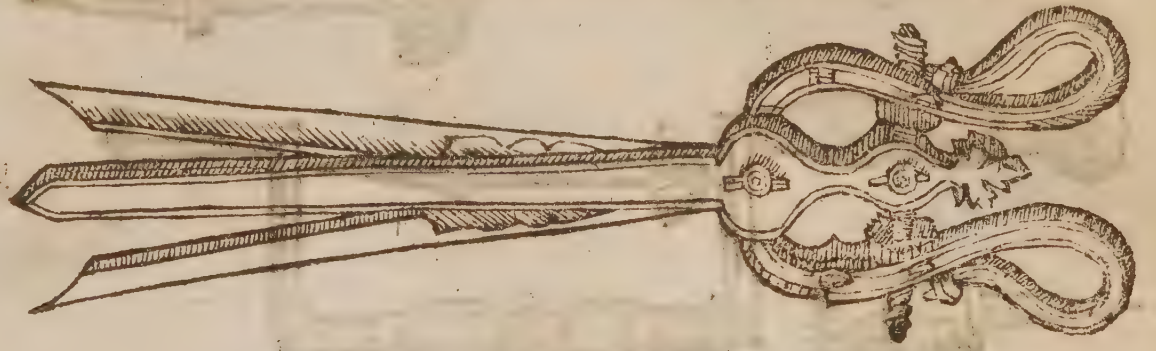
Terebra inuersa seruyng to take out thinges fixed in wounde.

Terebra directa, seruynge to inlarge boues whan thinges are therin fyxed.



An other kinde of Forceps Denticulata: and are vſed for to take out ſhotte pelletes, arrovve heades, and other thinges fixid in vvoundes.

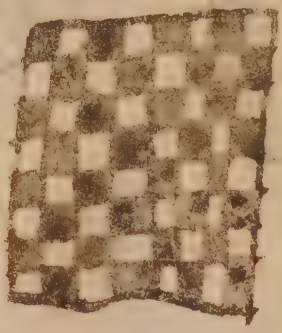
Forfex exciſoria, or inciſion ſheares, to enlarge a vvounde vvith.



Synrigies to make Iniections into vvoundes.

Trapana, or a trapane to boore holes in cranio whan necessitie requireth.

Gossopium, seruyng to laye the fractured legge in, broken with a gonneshot. &c.



An Enchiridion

of Chirurgerie, conteyning the exacte and perfect cure of woundes, fractures, and dislocations, newly compiled and published by Thomas Gale, Maister in Chirurgerie.

PRINTED AT LONdon by Rouland Hall, for Thomas Gale.

1563.

Richarde Ferris Sear-

geant Chirurgian vnto the Queenes moſt excellent Maieſtie, vnto his louing frende maiſter Gale ſendeth greting.

TVVO thynges there be at this preſent vvhiche moueth me to addreſſe my letters to you maiſter Gale, of vvhich the one is the auncient and famous art of Chirurgerie, vvhich vvas in tymes paſt not an art of it ſelfe, but one portion of the curatiue part of Phiſicke, called Therapeutice: the other is my natiue countrey. Theſe tvvo by your labours and paynes: I truſte ſhall receyue no ſmale profite and gaine, and theſe make me to vvryte my letters gratulatorie vnto you. Firſt that the art of Chirurgerie, vvho being novv ſo decayed, vvhoſe fame ſo obſcured, her beauty eclipſed & vtilitie of it diminiſhed, ſhal by you be ſomevvhat brought to her vvonted & priſtinat ſtate. For it is in far vvorſe caſe novve in this our furious and raging ſeaſon (in vvhich good artes are contemned, or els lytle eſtemed and had in price) then it vvas in the tyme of Mantuan the Poet, vvho ex-

clameth in this vvyſe.

Fama quidem manet, vtilitas antiqua receſsit.

The Poet ſpeaketh of Phiſicke generally vvaying the excellecie of it, & the great vtilitie that hath come to mankynde by it in the olde tyme, as the vvorkes and volumes of the Greke vvryters, do teſtifie and beare vvitneſſe: and conferring further theyr teſtimonies vvith the poore fruites of it that did ſpring in his tyme, as one lamenting the decay of ſo noble a ſcience, and great gifte of God to mankynde, ſayde in effecte.

Her noble fame yet ſtyll remayne,
But few doth health by her attayne.

He ſpeaketh it in the vvaye of comparation, that there did not ſo many by the benefite of Phiſick receyue their health as did in the olde tyme. But I leaue Phiſicke, and vvill ſpeake of Chirurgerie both our profeſsions. Surely I dare boldely affirme that if Mantuan vvere novve liuing and did beholde the ſtate of Chirurgerie, he vvould not ſay that her fame did yet remain, but rather that nother fame nor yet great vſe remained: I had almoſt ſayde that it vvas knovven but only by name. And vvhat be the cauſes that ſhe is broughte to this miſerable eſtate? If I ſhall ſaye that vvhich I knovv there

be

be tvvo principall enemies . The one is the Chirurgian himſelfe, vvho neither knovveth nor yet laboureth to learne his arte, but being inflamed vvith the loue of turpe lucrū, rudely and blyndely exerciſeth his arte. The other enemie is the Pacient vvho hath need of Chirurgeries ayde. For he vvill haue in lyke eſtimation, a Cobler, a Ioyner, a Minſtraile, a vvoman, yea a Horſeleache, that he vvill an expert Chirurgian, yea and revvard them as vvell, if it be not better. The remedies for one of theſe miſchiefes you haue, I hope, in tyme prouided. I meane in ſetting out your Enchiridion. For there ſhall thoſe that in deed are licenſed to exerciſe Chirurgerie, finde no ſmale portiō of this art compendiouſly and faythfully gathered together. VVherefore leauing other their authours in vvhich many errours are hidden, I doe exhort them that bothe for the fame of Chirurgerie, vvhich they ought to their vttermoſte to maintaine: and alſo for their ovvne gaine and profite they vvill not only read this Enchiridion: but read and read it againe, not leauing vntill they be made vvell acquaynted vvith the ſame. And if any places do remaine obſcure and darke: they yet haue you the authour to reſort vnto, vvho vvill as gladly I am

ſure open the meaning of them, as he hath vvillingly for their gaine and profite compiled the ſame. As for the other enemie I meane the ſick pacients, it doeth not muche force, for they are enemies chiefly to them ſelues, vvhen as they fall into the handes of ſuche rude and buſſardly clouters. And although the pacients being maimed and brought in perill of death by ſuch, do exclame againſt Chirurgerie and Chirurgians: yet if the Chirurgians themſelfes ſtudy to be learned & excel ſuch rude Emperikes, the ſlaunder ſhal returne to the authours therof again. The ſecond cauſe of my vvriting vvas for my natiue countries ſake, that lyke as you haue labored frō the tyme that you vvere in my gouernaunce & teaching to profite the ſame, and haue novv ſhevved an euident ſigne and token thereof in this your Enchiridion: ſo you vvill not ceaſe to continue in theſe your good enterpriſes, and your country ſhall revvard you vvith honeſt report and perpetuall fame. Thus I ceaſe to trouble you further, looking ſhortlye for the publiſhing of this and other your vvorkes. At my houſe in Paddinton, the ſeconde of July. 1563.

CHirurgerie vvhoſe perfect lyght
all other realmes do knovve,
VVhoſe learned men vvith diligence,
doth make it ſhyne and ſhovve,

In our coſt hath not yet apperd,
ſaue in moſt obſcure vvyſe,
Thorovv duſkye clouds of ignoraunce,
that ſcience doeth diſpyſe.

But maugre novve the malice great,
of Momus and his ſect,
A moſt cleare Gale doth blovv avvaye,
thoſe cloudes and them detect.

As after rude and cloudy ayre,
the vvelkyne hiecinthe blevve,
Is ſometyme ſeene, vvhen vvynds moſt drie,
haue chaunged ſo the hevve.

Therefore to this excellent Gale,
ſee that ye thankefully,
Geue condinge prayſe, and pray that he
may moe ſuche blaſts apply.

That the armade of learned ſhipps
belonging to this arte,
May vvaye the ancres ſpred the ſayles,
and from rough ſeas depart.

VVhyle this gale blovves, that ſome of them,
ariue maye at our porte:
That to the fleet of knovvledge ons,
yonge learners maye reſorte.

Purchaſing ther vvith diligence
ſcience that vvyll remayne:
Leuyng aparte vyle ingnoraunce
the mother of diſdayne.

Ihon Hall
Chirurgian.

Thomas Gale Chirurgian vnto the yonge men of his company, students in the noble art of Chirurgerie, wisheth the grace of God, perfect knowledge in their art, and most happy and prosperous successe in the same.

WHen as I had for your sakes (dere brethren) finished my booke intituled the Institution of a Chirurgian, and thought to haue proceded no further touching the practike part, but minding to send you to Guido de Cauliaco, Brunus, Lanfranke, Vigo, or some other of our Authours in Chirurgerie, whiche doe thereof intreate: I could fynde no one that might answere my desire. For either they wryte in the tonge whiche the most of you vnderstand not, either vse they corrupt and barbarous names of sicknes and medicines, or they be to tedious & longe. or ells to concise and brief. Furthermore they welney al are so ful of errours, that they are only

for the learned to read, who can discerne betwixte trueth and falsnesse. Wherefore knowinge your desyre to learne, and seing the want of such Authours as you should profite by: I lamenting the case, and tendering your wealth haue taken the paynes to compile you this briefe Treatise, called hereof an Enchiridion, in whiche you shal fynde the methode and way how to cure all wounds both in the sinuler and instrumentall parts. Also how to knite and heale fractured members, and to reduce and repose againe into their wonted and naturall place suche bones as be dislocated. Diuers secret and perfect experiments I haue made open vnto you. Wherefore be bolde to worke after the doctrine set oute in this booke, and take these my labours as a pledge of my good wyll towards you all: and loue me styll as you haue begonne. At my house in London the .ii. of August.

1563.

The first booke of the

Enchiridion of Chirurgerie, conteyning the **exacte and perfect cure of wounds** made in the similer partes by Thomas Gale.

¶ The first booke.

FOr as muche as in this present treatise (which I do compile for the instruction of those that profesſe Chirurgerie) I do purpose to entreat orderly of wounds, fractures and dislocations: I thinke good first of all to set out what a wound is, and howe manye differences there be of woundes. Howbe it my principall scope tendeth rather to teache the practise then the theorike at this present. Therefore a wounde is named a solution of continuitie, newely made in the softer partes of the bodye, without putrifaction, corruption, or matter. For if anye matter, putrifaction, or corruption followeth, then is it no more called a woũde but an vlcer. Of wounds I doe make two differences: for either it happeneth in the similer partes, as in flesshe, arterie, vayne, nerue, bone &c, or els in the organicke or instrumentall partes. Of

these

these two sortes of woundes we wyll nowe seuerally intreate. And for because the least and smalest wounds, require least labour, diligence and connyng, and that the student muste in most easiest things be first exercised and trained vp: I wyll shewe you briefely the cure of a simple and small wounde, where the skynne onely is diuided or cut. You shall aptly ioyne the lippes or sides of the wounde together so euen as possible you can: then make a stufe wyth towe and the whyte of an egge mixed with a litle salte, and apply it to the wounde, then rolle and bynde it accordyng to arte, and this is sufficient in such kynde of woundes. You must also commaunde the Pacient that he exercise not the wounded member, least that he causeth accidentes to fall to the wounde, as inflamation, flure of humours, dolour, and payne. &c.

The cure of great and depe woundes, and of diuers kyndes of stiching. Cap. ii.

IF the wounde be great in the flesshe, and yet without accidents, you shall beginne your cure as in the chapter before, that is by comprysyng and ioyning the sydes of the wounde together, and than rollynge and byndyng it. But if the wounde be bigge, wyde, or els ouerthwarte

thwarte the member, so that rollinge and binding are not sufficient: than you are compelled to vse stiching, of whiche there be diuers sortes, and I wyll set oute those whiche are moste in vse. But or you goe aboute the stitching of the wounde, geue diligent heede that it be mundified and made cleane, that there remayne not in it eyther any vncleanesse, as heare, dusse, oyle, or suche lyke: whiche may hynder the adglutination of the wounde. You must for your stiching prepare a three square Needle made holow in the eye, that the threde maye the easier folowe, and let your threede be euen without knottes, well twyned and waxed. Then your stiching shalbe in this sorte. Make your firste stiche in the middes of the wounde, than a fingar breadeth from that make another on bothe sides of the midle stich, & so leauing the space of a fyngar breadeth, make so manye stiches as the wounde requireth. And take this for a generall rule that you neuer begynne your stiching at the ende of the wounde, because through that occation the wounde might be drawen awrye, and the member lose his beautie, and sometyme parte of his office. And beginning your stiches in the middes, this foloweth of necessitie, that your stiches shalbe odde, if there be more or lesse than twaine. And if the wound be deepe and ouerthwarte the member, then you

must

must make your stiches deeper and that for two causes, the one for that it shoulde not breake out againe the other that the wounde myghte haue lesse matter and better take consolidation. And when you haue thus stitched the wounde you must ouer cast the threde twise or thrise or you knit your knot: otherwyse it wyll breake out or you can knit your knot the proof of which I haue sene among the vnlearned surgeons. And when your wounde is thus stiched then take tow and make a stuke with the whight of an egge & thys pouder folowing and lay it on the wounde, and though it hath not beene vsed before this tyme, yet it is bothe better and more conuenient then that which is mencioned in the last chapter and this is the first kind of stiching.

The discription of the pouder.

Rec. Olibani p.ij.
Sanguis draconis p.j.
Calcis ex ouorum testis, p.iij.
Ex his fiat pulus subtiss. secundum artem.

The second kynd of stitching is to sowe ouer the hand as the skinners doe, which is vsed in woundes of the intestines or where as Siphach is sowed to Mirach. The thirde kind is to put the nædle through both the lipps of the wounde letting it so still to remayne and winde the thræde fire or seuen times about the neadle & thys is vsed in wyde and large woundes. The fourth maner of stiching is when as a vayne or arterie is cut and we vse to stay the flur of blod especially whē as vene iugulares is cut. Then we thurst the nædle through that vaine or arterye and then knit the same with the thried, then drawe out the nædle & let a portion of the threed hange out so longe vntyll it falleth awaye. The fyft sort of stiching is vsed in woūdes of the face or delicate and tender bodies which are not able to sustayne the paine of stiching with the nædle. And the stiching is in this sort. Take litle peices of linnin cloth thræ square and spreade on them this vnguent folowing. And lay on euery syde of the wounde the peces of cloth euery one from other an inche and when as the clothes are dried well, then stich them and drawe them together and vse the wounde in all other pointes as is afore sayde.

The makynge of the vnguent.

Rec. Dragaganti
Sang.draconis
Olibani
Masticheſ
Sarcocollę
} ana.a dragme.
Pulueris volatilis molaris iij.dragmes.
Albuminis ouorum q. ſ. ad incorporandum.

Of woundes in vaynes and arteries. Chap.iii.

When as it happeneth that the vaynes are cut & wounded you muſt diligently marke whether they be Venæ capillares (that is to ſay) ſmall vaines like heare, or ells any of the greater vaynes. If they be the ſmalle vaynes it ſhal ſuffyce to ſtiche the wound and vſe the pouder deſiccatiue mencioned in the chapter goyng before, with twoe and the whighte of an Egge. But if any of the great vaines be woũded, then the cure aforeſaid is not ſufficient. Wherefore you may attempt to ſtay the fluxe of bloud with binding the contrary ſide to the place wounded: or with letting of blood in another place wherby there is made diuerſion of the fluxe. Alſo wyth frictions and rubbing the contrary partes. Yf theſe ſuffice not then you muſt applye cauſticke

pouders

pouders as Arsenicum sublimatum, Vitriall burnt, vnsleked lime, or such like, or ells make cauterization with an yron, or sticke the ende of the vaine. And lay some desiccatiue pouder on it and so dresse the wounde letting it so remayne foure dates. And if there be any asker, you must apply to it the whight of an egge & oile of Roses well beaten together. And the cure that is heare spoken of vaines, is also to be vnderstand of arteries: and the way to know whether a vaine or arterie is wounded: is by the yssuing oute of the blod. For in an arterie cut, the blod cõmeth leping and springing out with sume staye accordinge to the dilatation and compression of the arterye.

A pouder desiccatiue.

Rec. Olibani ij. vnces.
Aloes hepaticæ. j. vnce.
Pilorum leporis minutim conscisi.
albuminis ouorum ad incorporandum.

I Anfranke gyueth great prayse to thys medicine, and maketh mention of a childe three yeres olde bearing a knife in his hande fell on it, & wounded his throte so that through flux of blod, the pulce beganne to cease & the childes

ſight to decaie. Lanfranke comming by, laid his finger on the mouth of the wounde to ſtaye the flux of bloud: then he tempered the pouder with the wheight of an egge, and laid it to the woūd, lettyng it ſo remaine fower daies: and when he would haue taken it away: it was ſo dry and cleued ſo faſte to, that it myghte not be remoued wout payne, wherefore he applyed the whyte of an Egge & oyle of Roſes beaten together to the place vntyll the nexte daye, and the wound was founde perfitely healed, to the great admiration of the people whych dyd beholde it.

An other deſiccatiue pouder.

Rec. Calcis viuæ
Sangui. draconis
Aloes hepaticę
} ana. halfe an vnce
Fiat puluis.

But if you wyll haue another, which dryeth and reſtrayneth more, vſe this folowing.

Rec. Gallarum
Sangui. draconis
Boli armeni
Thuris
Aloes hepaticę
Maſtiches
} ana. ij. dragmes.

pilo-

Pilorum leporis iij. dragmes, fiat pulvis crassus.

Rogerius and Jamerius vsed another pouder, which is not onely excellent in staying the flure of bloode, but also doeth exiccate and dry, whose sompo sition is in this maner folowing.

Rec. Colophonij vj. ounces.
Boli armeni iij. ounces.
Mastiches
Sang. draconis } ana. j. ounce.
Olibani
Radicis cõsolidæ maioris
Rosarum perficarum. } ana. j. vnce.
Fiat ex hijs omnibus puluis. Vsus, vt supra.

Wanswike remembreth a stone which he calleth a bloudstone, (but yet not that whyche are named Jaspis and Hematites) & it is in colour pale whitich with smal red vaines, and is found in Spayne, whose pouder he preferreth afore all other thinges in stayinge the flure of bloude in woundes, vaines, and arteries.

Of the woundes in Nerues or Sinowes. Chap. iiii.

In a wound it may happen the nerue to be diuided in length, & sometime ouerthwat which is very perilous. Also sometyme the nerue is pricked with a nedle, bodkin, alle, thyone or such like. Unto all this to cease the doloure and pain of so sencible a part, you shall vse oyle of Roses made wyth Oleum omphacinum, somewhat warmer then the pacient can well sufferr. Also you may make a good digestiue of fine Turpentine well washed in the waters of plantyne, or Hipericon, & apply it to the wound. And if these with often application ceaseth not the dolour & payne: then take Olei rosacei two Unces, Boli armeni two dragmes, & opy a litle: mixt these to gether and apply it warme to the wounde. And when the payne is ceased and the wounde draweth to maturation: then you may heale it with the drinke and plaster vsed in greene woundes, which you shall fynde in the antidotarye. You shall also not onely in wounded Neruis, but also in all other wounds vse Vnguentum de vermibus, whose composition is in this maner.

Rec. Centaurij minoris
Cynogloſsi
Conſolidæ minoris
Conſoldæ mediæ
} ana. M. j.
Olei omphacini lib. j.

Lum-

Lumbricorum tereſt. } ana, half a pou.
Vini albi }

Stampe all theſe together and let them ſtand infuſed vii. daies, then ſtampe with that.
Seui Oiuini. lib.ij.

Picis } ana ounce iij.
Reſinæ }
Ammoniaci }
Galbani } ana, v.
Opopanicis in aceto ſoluti } dragmes.

Boyle all theſe together vntyll the wyne and vineiger be conſumed. Then ſtrain it and when it beginne to waxe colde adde to it.

Thuris }
Maſtiches } ana dragmes iij.
Sarcacollæ }
Croci dragmes.ij.

Theſe being made in fine pouder, in the putting them in, ſturre them well wyth a ſplatter or ſlyſe that they growe not into cloddes and lumpes. Alſo to defende the wound of ſnowes yea and all other woundes from accidentes whyche doe commonly chaunce, all excellente

Chirurgians vse to haue in readynes thys defensyue folowyng.

A defensyue.

Rec. Olei rosarum. ij. ounces.
Boli armeni.
Terræ Sigillatæ. } ana. i. ounce.
Aceti.
Camphoræ. j. dragme.
Solani
Semperuiui } ana. M. j.

Make of all these in a morter a perfyte vnguent. And if the woundc be to moyst and hath to muche superfluous matter whereby it can not come to adglutination and cicatrization. Then vse this medicine next insuing.

Rec. Mellis rosacei. ounces. vj.
Farinæ Hordeaceæ. ounces. ij.

Temper these together and boyle them, but suffer them not to burne, then put to it fine turpentyne (washed in the water of Hypericon) two vnces, mixe them and vse it to the woundc.

Of woundes in whiche are fyxed thornes, splinttes of wode, arrow heades, gonneshotte, or such lyke. Chap.v.

When as in woundes their happeneth to be fixed thornes, splentes of woode, arrowe heades, gonshotte or such other like, and the orifice of the wounde is so narrow that with instrument it cannot be taken out, you must of necessitie labour to enlarge the wounde, which you may do two sondry waies. The one is with tentes as of the roote of gentian, pithe of elder, or a peece of a sponge: the other is to make incision with a paire of cisers or with sheres whose fygure is in the institution. There be also when as the wound is enlarged diuers and proper instrumentes to take out w̄ such thinges as are there inserid as tōges or nippers, & teribil lis, whose pictures are in the Booke before named. Also you shall know in deape woūdes what part is hurt by these signes folowing. As the braine beyng woūded he shal voide scomme and some at the mouth. If the hart be wounded, their yssueth out bloude blacke in colour. Also if the longs be wounded, the blod is like a scūme. But yf the stomacke be perced the meate indegest commeth out. In like maner the intestines being woūded, the odour issueth. Further more

the vrine floweth out in wounds of the bladder: and so by that which is cõteined in the member, you shall coniecture the wounded part. Now as touching the taking oute of suche thinges as be fixed in the wounded member, you may procede principally three sondry wayes. Fyrst you may vse suche instrumentes before set oute as shall seme most necessarie. Secondlye if the thynge fixed be forkyd as a broad arrowe head or suche like, and be perced through the greater parte of the member: then it shalbe much better to thrust it through the member then to take it out at the orifice of the wounde. Laste of all if these twoo wayes wyll not serue, because of the wounded place, then as much as you can make the wõũd wider by tents or incision, and lay maturatiues to it certaine daies, and then that which is contained in the wounde will with lesse difficultye come forth. You shall commaunde the pacient to laye on the wounded syde, because the drynke whych I vse in such woundes may the more readely come to the wounded part. The composition of this drinke you shall fynde in the antidotarie. Also you may vse thys playster folowynge to the wounde whych is right good in extraction of such thinges as are fixed on woundes.

The emplastre.

Rec.

Rec. Apostolicō descrip. Nicholai iiij. vnces.
Magnetis orientalis. ij. vnces.
Polipodij. } ana halfe. ounce
Dictami albi. }
Pinguedinis leporinæ. ij. vnces.
Olei canabis. j. vnce.
Terebinthinæ. halfe an vnce.

Of all these make an emplastre. Also there is another composition of meruailous vertue in drawynge oute rotten bones, thornes, and other lyke thynges.

Rec. Nucleorum palmularum.
Stiracis rubei.
Salis ammoniaci,
Aristolochiæ longæ.
Radi. cucumer. asinini.
Teribinthinæ.
} ana v. drams.

Piperis albi.
Piperis nigri
Armoniaci.
Amomi.
Xylobalsami.
Thuris masculi.
Colophonij.
} ana ij. dragmes and a halfe.

Fecum olei liliacei. q. ſ.
Ceræ iiij dragmes fiat vnguentum,

But in arrow heades or ſhot poyſoned the medicines rehearſed are not ſufficient. Wherefore you muſt giue the patient ſome antidotum or Alexipharmacum, againſte venome bothe inwardly and outwardly, inwardly you ſhal giue him euery day this potion.

Rec. Vini cretici } ana ounces. iiij.
Sublimatæ rutæ }
Tormentillæ. } ana ij. dragmes.
Dictami. }
Theriacæ opt. i. dragme.
Bulliant ad conſumtionem tertiæ partis.

Outwardly into the wound you ſhall put oile of violettes warme, which oile muſt be made of line ſeede oyle. You maye alſo weate you tent in the ſame oile and alſo myrte it with your other medicines that you apply to the wounde.

Of confuſyd, bruſyd, or cruſhyd, woundes. Chap. vi.

In contusyd woundes the methode curatiue differeth from that which hetherto is mencioned. For in these woũdes first you shall apply maturatiues, whereby that which is brosid and separated from the vnitie of the part may be turned to matter (they call it in Latyne sanies vel pus) and when it commeth to maturation: then you muste vse mundificatiues to mundifie the wounde, vntill it be cleane and voyde of matter. Then your next intention is to ingender flesshe which you must doe w̃ incarnatiue medicines, & euer be diligent to defende the contusid member from accidentes with oyle of Roses warme applied to the same. As touching maturatiues, mundificatiues, and incarnatiues, you shal find them in my antidotarye and in dyuers partes of thys worke.

Of deepe and hydden woundes whyche can not be well perceyued, Chap. vii.

In this kynd of woundes the cure is done two sundry wayes. First if the place may suffer it without hurt of vaines, arteries, & nerues, is to delate the wounde with tentes of gentian or of a sponge and after make it open & large wyth inficion. The other is if the first waye cannot be done without daunger, to put into the wound a

ꝓbe or ware candle, vntil you come to the end of the wounde, and make there an ꝑsue that by this way the matter in the wound may be clensed with some mendificatiue lotion conuated in to the woũd by a syring. Let your rolling also be such ẏ it be lose at the orifie of your woũd, for otherwise you shal kepe ẏ matter still in ẏ woũd. Neither shall you in mundifyng the wounde thurst out the mater, for so doing you shal thurst out the indigest matter in colour of blod & hynder much the cure of the woũde. As Bruns wik maketh mention of a certayne Barbour who had no knowledge in Chirurgery, and yet wold take vpon him to ꝓactise. Thys Barbour (hauing a pacient wounded in the arme) did euery day thurst out so much bloude and brought such accidentes to the parte, that ẏf Brunswyke had not fortunatly come, the Barbours pacient had losse hys arme. Suche is the fruictes of blynde Emperikes. You shall also aboue the wounde applye some defensiue, and on the wound some mundificatiue, and make your iniections wyth a syring vntill the water come forth of the same colour it was put in. The water vsed for iiections is made in this maner.

Rec. Mellis rosacei. vj. vnces:
Rosarum rubearum. }
Florum camomilli. } ana iij. ounce.

Mastiches

Maſtiches. } ana j.ounce.
Ireos. }
Thuris. halfe a vnce.
Mirrhæ. i.dragme.
Vini albi. ij.pound.
Aquarū plātaginis vtriuſq3. }
Roſarum. } ana, a
Caprifolij. } pound.
Foliorum quercus. }

An other moꝛe vehement.

Rece. Aluminis. j.vnce.
Balauſtij. }
Nucum cupreſsi. } ana.j.dragme.
Orobi }

A dꝛying water.

Rece. Conſolidæ maioris, viij.vnces.
Peucedani. iiij.vnces.
Aluminis. ij.vnces.
Aquæ fabrilis per filtrum deſtillatæ. iij.pounde.

Boyle al vnto the conſumption of the thyꝛd parte.

A mun-

Amundicatiue.

Rec Vnguenti egyptiaci. ij.vnces.
Aluminis. i.vnce.
Olibani. halfe a vnce.
Mirrhæ. j.dragme.
Vini rubei tvvo pound, bulliant pulliant.

Of wounds in the bones. Chap. viii.

The solution of continuitie in the bone is in diuers sundry wyse as fractures, splentes caries, and by wound: of which last we will onely in this chapter make mention. If the bone wounded doth hange to the panicle which inuesteth & coureth the bone, then doe what you can to cause it to ioyne. But yf thys panicle be also cut, then will not the wounde be fylled wyth flesh except the peeces deuided be taken awaye. And to the wounded bone you shall vse Vnguentum aureum ex mesues prescripto. After you must applye mundificatiues and consolidatiues set out in the antidotary, and see that you vse in this wounde apte ligature and that it be open vpon the wound, that you may daily apply medicynes to the place wythout loseinge of the roller. Furthermoze you muste laye aboute the

wounde

wounde some defensiatiue whereby the parte shalbe preserued from diuers & sondrye accidentes which might fall to the wounde. The Chirurgian must also haue regarde that the pacient keepe a moderate diet and that he be soluble in body. Which if it cannot be by nature, then procure it may be done by art. As by purgation, clister or suppositorie. And in all other thynges the cure of this wounde differeth not from the cure of other woundes.

Of a newe kynd of curyng greene and freeshe woundes wyth balme. Chap. ix.

The healing of grēene wounds by balme artificiall is in this wyse. Close the wounde and stiche it make it cleane w̄ a dry sponge and put of the baulme into the wound very hote and dresse it twise euery day. And here you must note that thys balme taketh not like effecte in al greene woundes. For the cure differeth accordyng to the countrie, complexion of the partie & place that is woūded. For if the country be hote, the pacient colerike and the wound in the head, the baulme taketh not lyke effecte nor is to be ministred as afore is said. For the coūtry beyng whote, and the pacient whote the wounde can not be curied w̄ balme which is also hote. And

it

it is a maximum in phisicke, that infirmities are taken away by their contraryes. Howe then shall the medicynes lyke in qualitye to the region and complexion, cure the infirmity? Except you wyll aunswere me it doth it apropietate totius substantie, which is nothinge so. What then, shall not Balme cure woundes in the fore named pacientes? Yeas verylye, and I wyll shewe you in what maner. Stich your wound as is before mencioned, and mundifye it wyth a drye sponge not dypte in water and take away all the blode aboute it: then take Cotten and make a stuphe and dyppe it in Oyle of Roses and Balme not heate, of eche equall portions and applye it to the wound. And defende the woundes wyth all diligence from accidentes wyth some defensiue: for to Colorike persons in whote regions there commeth accidentes spedelye. The lyke cure shall be in woundes where as the boone is séene. Excepte that you muste adde to the Oyle and Baulme, Turpentyne well washed and the stuphe beynge layde on the wounde, you maye further vse the emplaster whych customably is occupyed in grene wounds. And yf the region be coulde, the pacient flegmatycke, and the parte fleshye then applye your Baulme whote, for in those there folowe of course small accidentes, except it be by disorder of the pacient & fault of the Chirurgian

and

and great woundes in these persons will sone be curied. For this artificial balme hath in him the vertue attractiue, conglutinatiue, & desiccatiue: his discription you shal finde in the antidotarie. Also in whote regions, colde complextions: and in colde regions, colericke persons shall soner be curied: then where both region & temperature of the pacient agree in whotnes. The like is to be understand of the time of the yere. For ỹ colerik person being woũded shal soner be curied with balme in winter, then somer. Also the wounde being dressed, there are thre kind of ligatures or roillings vsed as necessitie requireth. The first maketh flesshe in the wounde to grow & is called incarnatiue. The second doth expel such matter and superfluitie as combreth the wound & thys rolling is named expulsiue. The third reteineth & kepeth the sides of the woũds together, & such medicines as are applyed thereto and is called retentiue. Of them in our institutiõ of Chirurgerye we do make a moste ample discours. And thus briefly and compendiously we haue passed ouer the principal woundes which may happen in the similer partes: Now we tyme and order requireth that wyth the lyke methode we intreate of woundes in the instrumentall partes.

FINIS.

The seconde booke of the Enchiridion, conteyning the curation of woundes in the instrumentall parts:

By Thomas Gale Maister in Chirurgerie.

ALthoughe it myghte seme sufficiente for the generall cure of wounds to haue made mention of those which are conteyned in the first Booke: yet seyng perticuler exercise in the instrumentall parts is both delectable and profitable: and is as it were a master which teacheth: I wyll indeuor my selfe to set out perticulerly the cure of woundes in the instrumentall partes. And I call an instrumentall parte, whych is not simple but compounded of the similar, as the head, the eye, the hand, the arme, and such like. And for because I wil order ly intreate of them: I do deuide the body of man into .iiij. partes, that is to saye, into thre ventricules, and that whych the anotomistes do cal artus, conteyning the armes and legges. The first ventricle containyng the aninimall spirits geuing sence and motion to the whole bodye is the heade. The second comprehending the vitall spirites is from os furculæ vntyll Diaphragma: where

where the inferior ventricle receyuing the liuer stomacke, splene, kidneyes, intestines, bladder and dyuers other partes doth begynne: and endeth at os pubis. And for because the soule is the most noble part of man and hath hys seat in the head, I wyll begynne wyth the woundes of the head first, and set forth suche thinges for the preseruation of this so principall a part as my poore knowledge and experience wyll extende vnto. And here loke not that I will waste tyme in rehearsing of weapons wherwyth the part is hurt as diuers do. For it helpeth nothing to the cure of the wounde, to say he was hurt wyth a staffe clubbe, sword, shotte, fall, or such like: but rather to loke to the wounde selfe: whether it be a simple wounde, or that it be compounde: whether it be contused, or els but cut: and so folowing the differences set out in the first Booke.

Of certayne generall preceptes, necessarye to be folowed in the cure of woundes of the heade. Chap. i.

WOunds in the head are diuers and sondry, some are but simple woundes, beinge cut wout anye accidents or hurt of Cranium, som be with cutting also of Cranium. Some be contused and yet Cranium perfyte, other hap-

peneth with the breaking of Cranium, some are with perishing of Dura, vel Pia mater, and losse of some substaunce of the braine, and others are wout. But for that I woulde you should know whether the Cranium, be fractured or not, I wil giue you certain proper preceptes. If the contusion be great, yf he fall from anye highe place, or haue a greate stroke, if when he reteyneth hys breath there cõmeth out moistnes through the diuision or fracture of the bone, also vomitinge, vertigo, bleding at the nose or eares, the eies red and swolne, want of speche, a sharp feuer, & difficultie of makinge his vrine: all these shewe Cranium, to be fractured. There is also another note to know Cranium fractured, and that is to streke on Cranium, ynke or Mastick and if there be any fracture, then in the place there wyll appeare blacknes, which is a most certayne token that ỹ Cranium, is fractured. Also in your prognostication you must consyder these briefe sentenses. Greate breaken of Cranium, is perilous, and the wound in the braine or corruption of the Dura, vel Pia mater, is deadly and mortall. If the blacknes of Dura mater, whan it happeneth cannot be taken awaye wyth Mell rosaceum, it is a token of death. Also the Cranium, or brain wounded at such time as the mone is at the ful (that is when she is in opposyon of the sunne) it

is

is very perilous. And in curinge the wounde yf there be a tumor or swellyng and that same soddenly vanishe, it is perilous. But in the consolidation of Cranium, if the flesshe appeareth redde it is a good sygne. Lyke as if in the wound there be good digestion and no acidentes comming to the same. And for because in curing the wounds of the head there is diuersytie in worckynge and diuers opinions: I thinke it good to set oute certaine documentes whiche I take oute of the famous Guido, whose wordes are these folowing. First saith he the woundes of the head w̃ breaking of the bone haue much difference from the woundes of the other members both for the nerues to Cerebalis Medullæ so noble a part, & also for the roũd and spherelike figure and forme of the head, which hindereth vnition and is vnapt for ligature and rolling. Secondly that in great woundes of the head it is nedeful for to obserue the commõ intentions mencioned before in the treatise of Phleubotomie and purgiẽ. That the body be soluble which if naturally it chaunceth not, then by suppositorie, clyster, or gentle lenytiue, you must make it lose. Also ỹ diet thin. &c. Thirdly that in woundes of the heade the heare be shauen & take heede that no heare oyle or water fall into the wound which may let consolidation of the wound, and that to resist dolour both aboue & vnder: apply the white of an egge. And

Tract. 3. Doct. 3. Chap. 1.

after the beginning let thynges be vsed as is aforesaid to mundifie and incarnate. And rounde about the wound alwais vse the vnguent with bole armoniake & oile of Roses, that the dolour & distemperance of the part be asswagied & al apostimatiō put backe. Forthly as you haue often hard of Hippocrates, that all couldnes is hurtefull to nerues, bones, and marowe, and also the aire doth hurt and alter the principal members. And therfore in winter whan the pacient is dressed let the windowes be close shutte and a good fire of coales, & dresse him wyth a candle & when he is dressed put on his head a coyfe or cap made of a shepes skinne. Fiftly if the wounde be come to digestion and hath matter cōteined in it, that it be remoued away with fine linte or cotten so softly as may be, and this in winter must be but ones, and in somer twise. Sextly that vppon the tentes there be laide a soft spong to suck & draw and receiue out the matter that it falleth not to the braine. Seuently that you haue a role a yard long and foure fyngers broode, and that you shal rolle it vp within ij. handful of the ende & begin the ligature at the forehead, and extende it towardes to eares opposite to the wound and the other parte to the eare nexte the wounde leauyng the eares vncouered. And let the rouller come downewarde to the fyrste byndynge and doe it so manye tymes vntyll the heade be couered

uered.&c. Eyghtly take hée de yf there remayne anye skale of a bone, wasshe the wounde wythe Wyne. Yf there be no feuer gyue hym thys pouder folowyng.

Rec. Pinpenellę
Betonice
Gariophillatæ } ana.
Valerianę
Osmundę
Pilosillę, quantum de omnib. fiat pulius.

Last of all that the pacient lay on the side whiche least greueth him vnto there be founde matter in the wound: and then he muste rest on the wounded parte that the matter maye the more redily voide. Thus much in effect touching Giu do his counsaile. Also I wyshe from the first beginning of the wound vntil such time as there is no feare of apostimation ẏ you vse some mitigatiue as oyle of Roses thrée Unces, Honnye one dragme mixe them together. And then you may also vse this pouder whych dryeth without corrosion or pricking.

Rec. Irios j. dragme.
Thuris } ana ij. dragmes.
Aristolochię rot
Corticũ radicũ papaueris. half a drame.

Sarcocollę Sang. draconis Mirtillorum Nucum cupresſi	}	ana, j. dragme and a halfe.

Make theſe in a pouder. Thus much I thought good to write before I entred the perticuler cure of organike woundes, being as guides & counſelers to be folowed thorow this holeboke. Now wil I begin and ſhow their methodicall cure.

Of ſymple woundes in the heade wyth cutting, which happeneth without hurt of Cranium, chap. ii.

IF the wounde be ſymple wythoute hurte of Craniũ, or loſſe of ſubſtance: then is the cure of it like the cure of other woundes to ſtiche, rolle, incarnate, and cicatrize. But yf the wounde be wyth the loſſe of ſubſtaunce then you muſt dyppe your tents and couer your plegeantes wyth incarnatyues, and Cicatrize the wounde with your accuſtomed pouders, unguentes, emplaſters, and other thyngs thereto belongynge. As touchynge ſtiching in the heade becauſe manye ſpeake agaynſte it: I affyrme it to be not onelye profitable in ſmall woundes, but alſo in great, moſt neceſſarye. For it kepeth the

the partes separated together, which rolling can not, it also causeth that the aire dothe not alter the part, whych where it chaunceth it is verye hurtfull. And here I except great woundes in the fore parte of the heade whiche maye not be liched but on the syde. And putting in it oyle of Roses which doth both take awaye the payne of the neruous panicle inuestynge and couerynge Cranium, yf the wounde be so deepe and also it maketh the bones more easye to be taken oute, and taketh away the sharpenes of Yell when with it we intende to mundifie any inward panicle and defendeth from accidentes.

Of woundes in the head with cutynge and fracturynge or breakyng of Cranium, but not throughpercyng. Chap. iii.

The woundes chaunsing in the head by cutting and fracturing of Cranium, going not through the whole substaunce of the same is called Rimula. Thys wounde eyther is greate or smalle, yf it be small it shall haue the same cure mentioned in the Chapter nexte goynge before thys. For in suche a wounde there is small generation of matter, and that ingendred through hys grosse substaunce, cannot discende in the cut

or ryfte. But if the wounde be greate then is it eyther in the fydes of the head or vpper parte of the heade. Yf it be in the fydes, it hath also the same cure that the woundes in the Chapter goynge before receyueth. Excepte that in the lower part of the wound there be put a tent wher by yf anye matter be retayned in the wounde it may the easyer come out. But yf the wounde be in the vpper parte of the heade it maye not be stiched for that nature there cannot purge her selfe. Yf the fracture commeth to the myddes of of the two Tables of Cranium, it is nedefull to take sheres called Rugines of dyuers bygnes. And as the bone of the patient is vncouered you shall vse the greatter Rugynes, then after take those that are narrower and so at length the narowest of all, and thys shall you doe at all times in the myddes of the two Tables. Thus shall you speedely cure thys wound wyth dryng medicynes and tentes that shall sucke and drawe out the matter.

Of woundes in the head in whiche Cranium is cut vnto the inwarde panicle, wythout losse of substaunce. Chap. iiii.

This

Thys kynde of wound wyll haue sometimes sparankes or sharpe peaces of bones and some are free from them and are euen without sharpe peaces of bone. Those that haue the sparankes doe hurte and offende that panicle which is called Dura mater. Therefore they must be taken away with a lenticulerand made smothe and euen and then is the cure of thys wounde lyke the other woundes in the former Chapter. For yf it be in the vpper parte of the heade you shall vse to mundifye and desiccate without sticken, yf it be in the sydes, then in the lower part of the wounde you mulle put a tent as is aforesayde that the matter maye the easier come oute.

Of woundes in the heade contusyd wyth oute fracturing of Cranium. Chap. v.

It is the proper scope of curyng this wounde to apply to it medicines that resyst flur and repell the matter back. Vsyng in the beginning after the accustomed maner ỹ white of an egge mixed with olle of Roses. And so resolvynge the matter gathered, you shall vse Honnye and wine in which salt hath be nput. But if it come to maturation then you shall open it and vse the cure to it that is proper for apostumes and

such

suche medicynes as are mencioned in the generall chapter of contused woundes.

Of woundes in the heade wyth contusion and where Cranium, is lytle fractured. Chap. vi.

YOu muste diligentlye looke whether in the place whereas Craniumis fractured, there are anye sharpe peeces of bones, whych yf there be, they must be remoued with the lenticuler as is afore mencioned. Then you shall dresse the wounde and laye thereon softe silke wette in Honny of Roses and oyle of Roses and wyth your instrument you shall put in the lynnen cloth betwirte Dura mater, and Cranium. And laye on it softe tents wette in mel ros. and oyle of Roses and apply there on a lynnen cloth wette in the same, and on the wounde of the flesshe put eyther dry linte or a soft spong to suke vp the matter and apply an head plaster that the matter, close not wyth in. After whichyou shall in Wyne made whoote, weete towe and presse out the Wyne wyth your hand, and laye that also on then vppon that put drye towe and rolle it softely that the thynges applyed, maye abide on the wounde. And when the wound is mundifyed then leaue of the fyrste clothe, and vse the heade

head pouder to make the wound incarnate and so with consolidatiues and medicines inducing a cicatrice you shall procede vntyll the wounde be perfytely cured.

Of wounds contusid with great fracture of Cranium, Chap. vii.

COntusyd woundes with great breaking of Cranium must be cured after this methode.

Firste you must shaue the here away, then wt an incision knyfe you shall cutte the place crosse wise or as other do vse, whiche is not so good after thys maner. Then rayse of the flesshe and make the fractured bone open and bare. And yf there folowe any flure of bloud, you must clence the wounde wyth lynnen clothes dipt in water and Vinegre or the white of an egge an if there be no flur of bloude fyll the wounde wyth drye lynt and dippe clothes in oyle and wine & applye it to the place and bynd vp the wound as therto belõgeth. Then if there folowethno accidentes which maye hinder the cure of the bone: open the wounde and let the pacientes eares be stopped wyth lint or cottẽ that he hereth not for making him faint harted & affraid. And let two mẽ stay his head with their handes, and then with your knife departe the bone or wyth the lenticuler.

But

But if this cannot be done both spedely & wyth out great payne. then set a trappen and bore it throughe so many tymes vntill it be separated from Craniunt, and you shall take awaye thys bone fractured fyrst lifting it vp wyth an eleuatory vntill you may take it away with your nippers or fingers. Then you must make ỹ edgies of the bone smothe and euen. And after cure it in all cases as you cure woundes where Cranium is fractured wyth the takynge oute peeces of bones.

Of woundes in the face. Chap. viii.

WOunds in the face are eyther in the fleshy partes or not, yf in the fleshie partes, the wounde is eyther drye or moiste. If in thy fleshye parte and the wounde moiste, you must of force stich it with a fine smal round nedle and fine thræd: but yf it be in the fleshy part and dry you shal in the place of a roũd nedle vse a square If the wound be not in the fleshy partes then in any case youmust leaue of stiching & in the place of it to ioyne the lippes of the wounde together you shall doe in thys maner. Take Sanguinis draconis calcis ex testis ouorum, Mastiches, as much as is sufficient make in pouder & temper them with Honny vntill it come to the substaunce of hony. Then prepare. ij. linen clothes accordyng to the length of the wound & spreade

of

of it vpon the clothes, and then vnto ether side of the wounde applye a clothe and suffer it to drye. Then w̄ your needle take your stiches on both clothes and vnite , and ioyne the sydes of the wounde so euen and ryght as maye possible be, whyche thynges done laye on the wounde thys pouder folowyng.

Rec. Sanguinis draconis. j. dragme.
Olibani. } ana .ij. drams.
Cacis ẽ testis ouorum. }

Make these in fine pouder and temper them with the whyte of an egge and laye it on towe. And aplye it to the wound. After you shall heale it with the same plasters, vnguents, pouders, or balme as you accustomably do another wound.

Of woundes in the eyes. Chap. ix.

ALl woundes in the eyes or aboute the eyes are daungerous both for the nerenes of the brayne, and also for perrill & losse of syght. Yea it happeneth often that through woundes about the eies the nerues optick haue ben stopped & there haue also folowed somtimes a cataracke. What is then to be loked for, whẽ as the wound happeneth in the substaunce of the eye? Galene maketh mentiõ of one hurt in ỹ white

of

of the eyes and much moysture flowed out and yet the pacient restored to hys syght. In like sort doth Brunswycke rehearse the lyke history of two children wounded in the eye and muche moysture came forth and he curyed them wyth thys water folowyng. But these cures are de raro contingentibus.

Rece. Aquarum fęniculi
Rosarum
Polij
Eufragię
Rutę
} ana halfe a vnce.
Albuminum ouorum. q.s.

These did he temper and myre togyther and applied it to the eie: As he affirmeth to the great comforte and restoring of sight in the children aforesaid. But I will go to the cure of woundes of the eies which is without perishing of sight. If anye be wounded throughe the vpper or nether parte of the eye so that it hange downe, then wyth a nædle beyng bent croked, aptelye for the eye and a sylke threede well waxed you shall berye Fynele styche it vp that the tumour of the eye maye be the lesser.

And

And put into the sighte of the eye the water before mencioned, and make a Plaster of the whyte of an Egge, Sangui. draconis, and frankencens and laye it rounde aboute the eye, but beware that it touche not the eye selfe. Also you maye heale it with Baulme, but be diligent none fall into the eye, and euer vse the water aforesayde, whiche is a wonderfull defensiue and letteth accidents to come to the place.

And this shall you perfitly cure the eye. And yf the wounde come with arrow head, or sworde, you shall proceede with oyle of Roses, and yf any thing be fired in the wounde, worke after the doctrine set out in that Chapter. And when the thyng fired is out, fyll the wounde wyth oyle of Roses, tempered with the yelke of an Egge warme, and mundifie the wound with mel Rosarum, farina Hordei, & Fenogręci, after applye incarnatiues, and heale the wound with the plaster vsed in greene wounds. But if it be woũded w̃ nedle or thorne, vse the mundificatiue and defensiue aboute the eye, and washe the eye with this colyrium folowing vntyll he be healed.

Rec. Boli armeni .vncc. ij.
Thusię
Sangui. draconis } ana. vncc. j.
Gummi arabici

D. j. Make

Make these in pouder, & put it into a quarte of good rose water, & set that glasse in warme water three houres. Then put to it wyne of pomegranettes, & let it remayne in the warme water (the Alchimistes call it Balneum Mariæ) a whole daye. After straine it, and put of it morning and euenyng into the eye. Also put on it this plaster folowyng.

Rec. Succi Semperuiui, Solatri, } ana. iiij. vnces.
Boli armeni, Dragaganti, Myrrhæ, Gummi arabici, } ana. iij. dragmes.

Make that is to be brought into pouder, into pouder: and dissolue the Gummes in vinegre, and make thereof a Plaster, and if through chaunce there falleth into the eyes, heare, dust, motes, or suche lyke, open the eye, and mylke into it the mylke of a woman. Also it is verye good to vse this medicine plasterwyse, as the other before mencioned.

Rec. aquarum solatri, Semperuiui, } ana. ij. vnce.
Tutiæ præparati, halfe a dragme.

Cozali

Coralli rubei,
Margaritar. nō perforat. } ana. j. scrup.
Camphuræ, x. graines.
Dragaganti,
Gummi arabici, } ana. viij. graines.
Ceruſæ lotę, v. graines.
Lactis mulieris,
Albuminis ouorum, } ana ij. dragmes.

Myre theſe together and vſe it plaſterwyſe, as is afore ſayde.

Of woundes in the eares and lippes. Cap. x.

THere is nothing in theſe woundes proper to it ſelfe, but is cured as other greene woundes, that is to ſaye: Firſt ſtiche it and lay thereon the pouder mencioned before, made of Frankencenſe, ſangui. draconis, and lyme of Egge ſhelles, &c. and aboute the place lay ſome defenſiue. And the iij. day applye oyle of Roſes and the yelkes of Egges. After mundifie the wounde with Mel roſarum, farina hordei, Turpentine, Sarcocolle, & Myrrhe. Then heale it vp with balme, or the plaſter vſed in greene woundes: regarding alwayes if need requyre to purge, let blood, bore, and ſcarifie.

Of woundes in the nose. Cap. xi.

The Nose is sometyme cut of, and sometyme hangeth by the fleshe of the lippes.

If it be cut of, there is no cure to be vsed, for the organicke partes deuided, wyll not receyue vnition and ioyning againe together. If it hange by the fleshe of some other parte, then stitche it aptly and reduce the nose to hys naturall forme. Then put into the nostrelles tentes of Wolle, or Goose quilles, that the head maye bothe purge it selfe the better, and also that he maye the easier drawe vp the ayre. And on the wounde selfe, laye the pouder hereafter folowyng. Then laye thereon the whyte of an Egge with towe tempered with some of the foresayde pouder, and after bynde and rolle it, whiche thynge that you maye the easier and more aptlye doe, let hym put on his head a cappe or queyfe, and sowe thereto your bande, and so maye you procede in the curation of this wounde, with the balme or plaster vsed in greene and freshe woundes. The pouder applyed to the seame of the wounde is this.

Rec. Thuris
Calcis ex testis ouorũ } ana.ij. dragmes.
Sangũi. draconis

Vire

Vire them with the whyte of an Egge tempered with oyle of Roſes, the defenſiue maye be in this maner folowyng.

Rec. Succi ſolatri, Semperuiui } ana.vj. vnce.
Olei roſacei, iiij.vnces.
Boli armeni. ij.vnces.
Aceti j.vnce.miſce.

An other defenſiue.

Rec. Vitellos ouorum. ij.
Sang,draconis, Dragaganti, Gummi arabici, Boli armeni. } ana,ij.dragmes.

And yf you woulde haue the ſkinne fayre, then you may lay on it this vnguent folowing.

Rec. Thuris, Myrrhæ, } ana.j.vnce.
Farinæ fęnogręci, ij.vnce.
Reſinæ, vj.vnce.
Lithargyri auri, halfe an vnce.
Olei oliuarum, ij. pounde.
Ceræ, iiij.vnce.

Mire these, and make therof an vnguent, and vse it, as necessitie shall require & the discrete Surgian thinke conuenient.

Of woundes in the mouthe. Chap. xii.

The wounde of the mouthe hath nothing proper to it selfe, but is sticked, defended, mundified, incarnated and cicatrized, after the maner of other greene wounds, therefore it were superfluous to make a vayne rehersall of the cure & medicines, seyng it is playnly set out before, and medicines prescribed which are thereto conuenient.

Of woundes in the necke. Chap. xiii.

Wounds in the neck somtyme are made in the fleshye parts only, somtyme in the ligaments, cordes, & nerues, somtyme in ỹ great vaines & arteries, & sometime in the passages where as brethe, meate & drinke, goeth in. If it be in the flesh, it differeth not frō the cure of other greene wounds, but wt sticking pouder wine & other accustomed medicines it is cured If it be in the ligaments, cordes & vaynes, take deepe stiches in the fleshye parts about the ligaments, cordes & nerues, & then cure it with oyle of ground wormes, & the plaster vsed in greene

wounds. If it be in the great vaynes & arteries there is great perill, through the great flure of bloode, stiche the vaynes and arteries, & vppon them laye this pouder, whiche Galene vsed in the lyke great flures of bloode.

Rec. Thuris, j.vnce.
Aloes, halfe an vnce.

Make these in pouder, and incorporate them with the whyte of an Egge, vntyll it come to the thicknes of honny, then put to it the heares of an hare, and apply it to the wounded vaynes or arteries. Or you maye vse in place of it, thys pouder folowyng.

Rec. Colophonij, iij.vnces.
Consolidæ maioris,
Lapidis æmatitis,
Mastiches,
Sang. draconis,
Olibani, } ana. halfe. vnce.

Make these in fyne pouder and vse it as the other afore. Afterwarde you shall in all cases cure this wounde as is mencioned in the firste booke of vaynes and arteries wounded.

But if the wound be in the passages of ayre, meate & drynk, you shal stich it & vse the pouder, & vse it outwardly as other woũds: but inwardly you shall geue them Diasymphiton & Diadragacantum to licke with their tongue, and when the wounde beginneth to digest, then mundifie and incarnate it with this medicine folowynge.

Rec. Mellis rosati colati, iiij.vnce.
Farinæ Hordei, v.vnce.
Terebithinæ, iij.dragmes.
Ceræ, Resinæ, } ana. ij.dragmes.
Thuris, Mastiches } ana j.dragme.
Mirrhæ, Sarcocollæ, Mumiæ, } ana.halfe a dragme.
Olei Mastiches, iiij.vnce.fiat emplastrũ.

Hetherto haue we shewed the cure of woundes organicall, which may happen in the first or vppermost Ventricle: Now in lyke maner we wil direct our penne, & set out the cure of woundes whiche commonlye chaunce in the seconde or myddle ventricle.

Of

Of woundes in the brest. Cap. xiiii.

WOundes in the Breste either are without perciṅg through the same, or ells they are into the brest. If they be without percing into the body, they are cured as other greene woundes, with towe dipte in the restrictiue pouder, and layed to the wounde, and with the Iewes plaster, or the plaster incustomed in greene woundes, or elles with Balme. But if the wounde be perting through, then it is eyther with bloode falling inwardly and hurte of some inwarde part, or elles it is without flure inwarde, or percing of any inwarde member. Howe you shall by signes knowe if anye of the inwarde partes be hurte, I haue set oute at large in the fyfte Chapter of the first booke. As touching the cure of woundes in the breste, which are without hurte of any inwarde parte, you shall in no wyse tent them, but stiche the wound, & with stufes dypt in wyne, vnguentes incarnatiue, emplasters, and conuenient rollyng, heale it vp lyke another wound. But if it be percing through, and he bleed inwardly and some of the inward parts are hurt, then with al expedition and haste, you must labour to bring out such blode and matter as is within conteyned, and you must put in a tent large & long, on

whiche you shall streke oyle of Roses, & fasten a threde to the tent that it goe not in, and so put the pacient to great payne. The pacient must be layde vpon a borde on the woũded side, & so moued to & fro that the matter maye come out at the wound, & make iniections of wyne or Mellicratum with a syringe, diligentlye markinge the quantitie and colour of the wyne or Mellicratum when it cometh out, for if it be lyke in quantitie & colour, then you neede no more to make iniections for all the matter within conteyned is quite voyded at the wounde: Or you may boyle in oyle of Camomile, Lupines, mel rosarum, & Myrrhe, vntyll the iij. part be consumed, then strayne it & make iniections with a syringe as afore, and then shorten your tent, and apply this mũdificatiue folowing to ỹ wound.

Rec. Mellis rosati colati, halfe a pounde.
Mirrhæ,
Thuris,
Sarcocollæ, } ana. halfe an vnce.
Teribinthine, two dragmes.
Farinæ hordei
Fęnogręci. } q. su. fiat emplastrũ.

Then you maye giue him euerye morninge halfe a pynte of the potion warmed, whiche is vsed

vsed in these kynde of woundes, whose composition is in this sort.

Rec. Centaurij minoris,
Costi,
Nepitę,
Garyophillatę,
Pinpinellę,
Polosellę,
Summitatū canabis,
Caulium rub.
Tanaceti,
Rubię,
Glycirrhizę,
} ana. vj. dragmes.

Boyle all these together in fayre runnyng water vntyll the consumption of the thyrde parte. Then strayne it, and put thereto of clarified honnye so muche as shall bee sufficient to make the potion pleasaunt in taste. You musse also geue hym to licke of Diasparmaticon, Diadragagantū, Diasympiton, or Diacodion, all do comforte and strengthen the Brest. And when the wounde is mundified, and the matter digested, then you shal heale it with the plaster called Diapalma or Phenicinum, and with this pouder folowynge vsyng apte and conuenient rolynge, accordyng to art.

Rec.

Rec. Mastiches,
Mirrhæ,
Thuris,
Sarcocollæ,
Sangui.draconis
} ana.j.dragme.

Make them in fine pouder, and thus haue I shewed you the proper cure of suche woundes as maye happen in the midle ventricle, beynge not deadly and mortall, which do vtterly refuse all kynde of curation.

Of woundes in the thirde & lowest ventricle, called vsually the Belly. 1. Chap. xv.

There are properlye three sundrye simple woundes in the region of the belly according to which there is three diuers cures. For either it is a smale wounde not percing through: or elles it perceth through, and so doth hurte of necessitie some of the inwarde partes, but yet they come not out: Or elles it perseth through with hurte of the inwarde partes, by reason of whiche they come forthe. You shall knowe what parte inwardlye conteyned is wounded by theyr proper sygnes set out in the the fyfte Chapter of the fyrst booke.

As

As touching the cure of these woundes, I wyll seuerally intreate. If the wounde in the Belly be but in the fleshye partes, withoute persyng through, then you shall stiche it, and heale it with Balme, or the plaster accustomed in greene woundes, without further difficultie. But if the wounde perseth through Siphac and Myrach, and yet hurteth no other of the inward membres nor they come not out, then the cure of this wounde shall be as is aforesayde in all thynges except stitchyng. For in the first stiche put the neede through the one lyppe of the wounde, but touche not Siphack: and after put the Neede through the other lyppe, and through Siphack and Myrach, and make a knot vppon the threede. In the seconde stitche thrust the Neede through the one lyppe, and and through Mirach and Siphack, but in putting the Neede through the other lyppe, you shall not touche Siphack but Mirach, & make a knot without, and so procede orderly vntyll the hole woūd be stiched. And this is it that Galene sayth, sowe Siphacke to Myrach, because it is a neruous panicle, and without blood it can not of it selfe take consolidation. But yf any of the inwarde parts, as the stomake, Lyuer, Splene, Intestines, or Bladder, be wounded, and yet by reason of the smales of the wounde, they come not out, nor can not cōueniently be taken

forth

forth, then you must with muche wisdome and discretion amplyat & make the wounde larger, and if the wound be in such partes as are to be stitched, as the bottome of the stomake, or intestines, then they shalbe sowed as the Skinners do accustome ouer the hand, and put vppon the seame this pouder folowing.

Rec. Olibani,
Mastiches,
Dragaganti
Gummi arabici, } ana. j. dragme.

Sang. draconis
Mumiæ, } ana. half a dragme.
Misce fiatq3 puluis subtilis.

And then you maye procede to the outwarde wounde and stiche it and let the threede of the inwarde wounde hange out at the outwarde wounde, that as inwardelye it doeth consolidate, so you may take awaye the threede and applye to the outwarde wounde this pouder folowynge.

Rec.

℞. Sanguinis draconis,
Olibani,
Calcis ℈ testis ouorũ, } ana. half a vnce.

Make these in pouder and vse it as is afore saide, ℈ in all wounds of the inwarde parts giue the pacient the wounde drinke specified in the xiiij. Chapter of this booke. Also Glisters made with stipticke wynes, are meruelously commended, in lyke maner is this potage or brothe muche commended.

℞. Aquę pluuialis vel fontanę, q. su.
Furfuris treticei,

Let these boyle one houre then strayne it, and put to it these pouders folowyng, and geue the pacient to eate thereof .iij. or .iiij. tymes a daye or you maye prepare him brothe made with a chicken yf he be muche infebled ℈ weake, ℈ put of the foresayde pouder into it, but if Virbus be wounded ℈ corrupted, then sayth Galene, let the blacke ℈ corrupted partes be bounde with a threde or corde, ℈ cut away al that is so bound, ℈ after the stiching of the belly, let the ends of the corde hange out, at ỹ neither part of the woũd. But if the wounde be through perting wythout hurte of some inwarde parte, ℈ comminge forth of the same, then in this cure there are iiij. ententions to be obeserued.

The

The firste is to put suche partes in their proper places as are come forthe. The seconde to stiche or sowe the wounde. The thyrde is to applye apt medicines. And the fourthe is, that none of the inward partes suffer dolor or tumor, but be defended from accidents. The first intention is brought to effect, if the wound be bigge & wide enough, that with softe and gentle handlyng, they maye be put in theyr due place. But if by this meanes they may not be put in, eyther for the strayghtnesse of the wounde, or elles because the partes be swollen or inflamed, then you muste worke in thys maner. That is to saye, if the wounde be to strayte, then you shall enlarge it aptly with a conueninnt instrument. But if they maye not be put in, because the partes are swolne and inflated, then you shall labour with continuall fomentations to put awaye the same, whiche springeth for the more parte of coldnesse of the ayre. Then take softe Sponges dipte in warme water, and foment the intestines, and after foment them with astringent Wyne, whiche is muche better then the water, and doth a great deale more strengthen and comforte the intestines. The seconde intention is performed with softe and gentle handlinge & compressing the Bellye beynge certayne that the members without be rightly placed, then conuenientlye

to

to sow and stich vp the wound according to art. The thyrd intention which is done by application of medicynes, is to lay that comfortable pouder on the wound whose description I showed in this chapter aboue. Also stukes with wine, mear natiue medicines, emplasters, and other conuenient medicines & roling as are according to art. The fourth intentiō of the cure is done with soft wolle wette in warme oile and lay it about the region of the flanks, and giue him clisters of oile Wille or Camomill: & also vpon the wound selfe to power of the same oiles & applye emplasters made with fenegreke, Linesede and althea. Or you may boile wine and salt with as much flower as wil suffice to make it thicke, and apply it as hote as he may suffer it vpon his rolling and ouer all the partes that suffereth payne. And when thys is cold then vse an other, and so do so many tymes vntil the dolour & paine ceaseth And as touching the matter if anye remayne within after the stiching & curing of the wound, there is no great regarde to be had because nature doth digest and resolue it: and if there be any multitude she sendeth it to the flankes, and then the cure of it, differeth not from the cure of other apostumes whych happen in the flankes.

Of wounds in the bladder, yarde, and testicles. Chap. xvi.

WOundes in any part of the bladder except it be in the necke of the same (whiche thorow his fleshines wil receyue consolidation) are incurable. But those that are in the neck of the bladder, yarde, or testicles, haue the same cure that other grene woundes haue. You may verye well lay on the woundes of these partes, this medicine folowing.

Rec. Mellis rosarum. ij. vnces.
Olibani
Mastiches } ana. ij. dragmes.
Dracaganthi

Make these in pouder and myxe it wyth the Mel rosarum, and lay it vppon the wound: for it doth both mundifye and doth also defend the part from accidentes yet yf for the sensibilitie of the part, there happen great dolour and payne, foment the parte wyth Oyle of Roses warme. And doe in all other thynges, as in the cure of greene woundes.

Of

Of the woundes in the partes called Artus, conteynynge the armes and legges: and fyrst of the woundes in the armes. Chap. xvii.

These parts named Artus hath their beginning at the shoulders & so streacheth vnto the hands: and beginneth again at Ischion and extendeth vnto the ende of the toes of the fæte. The woundes in the arme haue no peculier cure to it selfe from other wounds, more then that the woundes in this part must haue ỹ most suerest and strong kind of stiching you cã diuise, because of the bygnes and ponderousnes of the arme. If the wound be in the flesshe, then cure it after ỹ second chapter of the first boke. If in the vaines & arteries, then folow the method set out in the secõd chapter of the same boke. Like as if the nerues be wounded, or els the neruous places as the ioynts, & heads of the muscules, the ligaments and tendons & such like. &c. you muste obserue the doctrine conteined in the forth chapter: & if the wonnde be in the bone you may vse the like curation, that I haue taughte in the, 9. chapter of the same booke. Furthermore yf the wound be both in flesh, vain, arterie, and sinow, then you must folow all the preceptes set out in the. 2. 3. 4. chapters. And compound & mixe your medicines together, according as the wounde is

in moze parts then one. And if after the cure of the woundes in the ioyntes (as manye times it foztuneth) there are any knots oz hardnes lefte wherby the ioyntes haue not their frée motion, then you shall take awaye thys accident wyth thys plaster folowing.

Rec. Lithargyrij iiij.vnces.
Muscilaginis fęnogreci } ana viij.vnces
Sem.lini. }
Muscilag.Maluiscici vj.vnces.
Resinę xvj.vnces.
Oleorum camomillę } ana,j. pounde
Oluiarum } and a halfe.
Cerę vj.vnces
Farinę fęnogręci } ana,ij.vnces.
Sem.lini. }
Mastiches } ana,j.vnce.
Thuris }
Axungie
Pingud.gallinaceę } ana.ij.vnces.
Anserinæ
Anatis

Make of these a playster according to art, and apply it to the knottes and it wyll resolue them and put them away.

Of

Of wounds in the thighes knees and legges. Chap. xviii.

THE same cure that is required to the woundes in the armes, is also vsed in woũds of the thighes and legges. But the woundes that happen in the ioyntes as in the elbowes, knées, and other like be most perilous and dangerous, because of the cordes, ligaments nerues, and sinowie partes which being wounded bring most greuous paines, and dangerous accidentes. Wherfore beside the cure set out of wounded nerues and sinowie partes in the forth chapter of the first boke: you must with all diligent skil, labour to kepe the wound from paine and accidents: by purging, letting bloud glisters, diet, repercussiues, and defensatiues & medicynes that doe cease dolour: amongest other thys is one.

Rec. Olei rosacei iij. vnces.
Lumbricorum terræ ij. dragmes.

Make the wormes in pouder, & mixe it with the oile & being made hote dyp cotten in it and lay it to the wound so hote as he may suffer it. Then vpon it, you shal lay a linen cloth. iiij. fold dipped in wine in the which these herbes folowing are boiled: then wette your roller also in it and rolle the member accordynge as it is showed in oure institution of Chirurgerie.

Rec.

Rec. Piloſellę
Arthemiſię
Betę
Herbę candelę } ana.M.j.
Vini.optimi.iij.pounde.

Alſo to defend the place from accidentes thys defenſiue folowing is right precious and good.

Rec. Olei roſacei iij.j.vnces.
Boli armeni. j.vnce and a halfe.
Terræ ſigillatę
Aceti } ana halfe an vnce.
Caphurę halfe a dragme.
Succi Solatri
Semperuiui } ana j.dragme.

Myre al theſe together in forme of an vnguent & vſe it about the wound. The other medicines hereto belonging you ſhal finde in the antidotarie and alſo in the furth chapter of the firſt boke. and thus I haue ſet out to you both briefely and plainly the cure of woundes in the inſtrumental partes: and alſo wherin they differ from the wounds in the ſimiler partes. Now wil I ſhow you the cure of wounds which happen through biting of a mad dogge, or ſtinging with a ſnake, adder, ſcorpion, or ſuch like; and then wil finiſhe this ſecond booke.

Of woundes commyng through bittinge of a madde dogge, stinging with a snake, adder, scorpion and such like. Chap. xix.

ALthoughe the cure of thys wounde rather doth appertaine to the Phisition then to the Chirurgian, yet (requiring no small parte of this art to the cure of the same) I wil shewe the cure of it according to the most approued authers Grækes, arabians, and Latinestes. And for because all virulent bytynge of venemous beasts & serpentes haue well neare one cure, I will shew the way and maner to cure the biting of a madde dogge, vsing it for an example to follow in the curation of the rest. Galene in the. 13. booke of his therapeutike methode, sheweth two indications in curing these woundes, the one is the euacuation of that virulent liquor, the other is the alteration of that which causeth dolour & paine. The euacuation of the virulent liquor, is done by whoote medicynes, whiche doe attracte and drawe. Amonge whiche Aetius dothe mernailously praise theriacam Andromachi, made plaster wise and applyed to the wounde. Also he vseth a playster vnto the same beynge of meruaylous effecte whose composion is in thys sort folowinge.

Rec.	Argenti spumæ Ceruse Resinæ.	ana, j. pounde.
	Olei veteris.	iij. pounde.
	Ceræ	vij. vnces.
	Ammoniaci Galbani	ana, iiij. vnces.

Make of these a plaster according to arte and apply it to the wounde. Also they vse to bore the wounde and to cauterice it, eyther with an hote yron, or with some cansticke medicine. Also many vse to pull of the fethers from the rumppe of an henne, and holde the rumppe to the wounde to sucke and drawe out the venome. Cornelius Celsus, doth much commende salt to be rubbed on the wound. Guido hath a plaster very sharp, but yet much commended, and is made in this maner.

Rec	Galbani Sagapeni Opopanacis Assę fetidæ Myrrhæ Piperis Sulphuris.	ana, halfe an vnce,

Sercoris

Stercoris columbini } ana, ij. vnces.
Anatis }
Calaminthę } ana. j. vnce.
Mentastri }

Dissolue the Gummes in wyne, & with honye & oile make hereof an emplaster. Take also diligent hede to enlarge the woũd & kepe it open at the lest .xl. daies. And prouok matter to flow out as much as is possible: & when you suppose the venome to be all drawen out, then you shal with mundificatiues, incarnatiues, and medicynes that do cicatrize, heale the woũd. But you must not forget to apply medicynes inwardly against venome called Alexipharmaca, which of their property do resist poison. Among which Galene in hys .xi. booke intituled de facultatibus simplicium medicamentorum, resyteth this medicine folowing to be of most meruailous vertue against the biting of a madde dogge.

Rec. Thuris. v. vnces.
Gentianę x. vnces.
Cancrorum fluuiat. xx. vnces.

Make these in pouder and giue hym .vj. spoonefull of thys pouder in fountayne water for the space of foxtye daies. And vnto the wounde selfe Galene sayth, hys master Aschyion vsed thys playster folowing.

Rec. Picis. j. pounde.
Aceti acerrimi Sextarium italicum.
Opopanacis. iij. vnces.

Pyre them and make them in a plaster accor-ding to art. This is the methode of curing these kind of wounds, and these be the chiefe and prin cipal medicines: which like as diligently I haue collected and gathered out of the principall au-thours writting of the cure of these kynde of woundes: so wishe I them to put it in prose when necessitie requireth, and also to take thankefully these my labours and paines.

FINIS.

The thyrde Booke of the Enchiridion. Setting out the remouing of such accidents as happen to wounds:

by Thomas Gale Maister in Chirurgerie.

NOw that we haue brought to an end and shewed the methodicall cure of woundes as well in the similer as also in the organicall membres of mans body: & haue set out diuers and those both excellent & also approued remedies for the same: I thinke conuenient in this thyrd booke to shew the perfit curation of such accidentes as do accustomably follow in woundes, eyther throughe the nature of the wound or vndiscrete vsage of the pacient, or els through the errour of the Chirurgiã. These accidentes are called of the Greeke writters Symptomata, And be such, as when they happen in woundes you shall neuer cure the wound before you haue quite put thẽ away. And the accidentes which commonlye happen in wounds, for the moste parte are these folowinge. That is to say. Dolour, Inflamatiõ, Dissemperance, a feuer, pruritus, conuulsiõ, the palsey, Sincope, and alienation of minde. Of these, so briefly and eraclye as I can, I wil in order make mention willing this booke to supply onelye the place in tyme

time of nede, where the learned Phisitian cannot be had. And first we wil beginne w̄ that accident which is called dolour or pain in woundes.

Of Dolour in woundes, and the aswaging the saine. Chap. i.

This accident called dolour, paine or greke, bringeth a flur of humors to the wounded part, & stereth most greuous accidentes, as phlegmone other wise called inflāmation, apostemes, and such like. Yea and that in those bodies which are pure and frée from excrementes. Wherfore with all diligence you must labour to ease the Dolour, or at the leaste to mitigate it somewhat, applyng to the place, fomentations w̄ oile of roses warmed, mixed, and tempered with the white of an egge. But if the paine be so behement that w̄ this medicyne it will not be mitigated: And that you are constrained to vse some stupifactiues, you shal make your fomentations w̄ oile of popie, and if great vrgent cause constraine you, you may adde a litle opium to it or Oile of mandrage. There are other who doe much commende this emplaster folowing.

Rec. Radicis Solani ij. vnces.
Foliorum maluæ M. ij.
Furfuris triticei iij. vnces,
Olei rosacei, q. s. fiat emplastrum:

Also

Also other do apply to the affected part an emplaster made of bread or whete flower boiled in milke and some oile of Roses. And these ceaseth the dolour & paines two wayes. Both in resoluing som part of the matter gathered by reason of the flux: & also in aswaging some what the vehemecie of the paine by the qualitie of the medicine. But of the medicynes, whych do aswage and cease dolour you shall haue it more at large set out in the antidotarie.

Of inflamination and apostemation. Chap. ii.

That which the greekes call phlegmone, we vsually terme in our language inflamation. And is no other thing then a vehement heate stirred in any part of the body through the force of the humor flowing to ỳ part. There are iij. intentions to be followed in the cure of an inflãmation. The first standeth in the righte order of diet, the second in ceasing the flux or diuersion of the anticident matter. The third is in euacuation of the matter collected & now impacte in the part affected. The fourth standeth in the correcting & putting away of accidentes. The first intention is fulfylled in the right vse of the syre thinges called Non naturales, as in the pureues and temperatnes of the aire. The meate and drynke could moyste and smalle. To flee exercise, and to vse quiet and reaste of bodye.

To

to vse moderatnes in slepinge and watchinge, to beware of surfitting and layng as they say gorge vpō gorge. To kepe alway the body soluble and lose. To flee all vehement perturbations and affections of the minde, as anger, contention chiding and such like. Last you must abstaine from Venus scrupce as from the greatest pestilence that may be in this diseace. The second intention which is in ceasing and diuertion of the matter that floweth, is by opening a vain in the contrarie side, if the age and strength of the pacient can suffer it. Also apply medicines to repell and driue backe, amonge whiche Galene prayseth Oxycraton (that is water and Vineigre boyled togither) and foment the place with a spong dipt in it, also you may boile in some astringēt wine, the rine of a Pomegarnet and foment the place therwith. Or els to apply to the place inflamed cataplasme which Galene in his seconde booke ad Glauconem doth so much commende whose composition is in thys maner.

Rec. Semperuiui
Maliconj.
Sumach. } aa q.s.

Boyle this in wine vntil it come to the forme of a cataplasme. Also Auicenne in his 3. fen. forth booke

boke. First Tract. Chap. 3. describeth another of muche effectacitie. Hys composyton is in thys forme.

Rec. Succi Semperuiui j. pound.
Vini nigri half a pound.
Farinę Hordei iij. vnces.
Malicorij } ana. halfe an vnce.
Sumach }

Boile these and make therof an vnction. But or you boyle these, you must make the malicotium and samach in pouder. The thirde scope in euacuating that is collected in the beginning of inflamation, is done wyth repercussyue medycines, and to mixe with these suche as doe digest the matter, among which this is one.

Rec. Rosarum. } ana. iiij. vnces.
Florum camomillæ }
Sapę j. vnce.
Aquę fontanę. j. pound and a half.

Boyle these and make an emplaster of them. But if the inflamatiõ be in augmento then you shal mixe with your digestiue medicines that represse and letteth the flux. But when the inflamation is in statu then mixe with the foresaid medicines,

medicines, medicines that doth somewhat mitigate. As oile of roses. Also you may vse this emplaster which in this sort folowing is described.

Rec. Parietariæ, Maluæ } ana, M.j.
Furfuris, Farinæ volatils } ana j.vnce.
Fenogręci, Anethi } ana ij.vnces.
Olei camomillæ vj.vnces.

Boile all in wine while they come to the substaunce of an emplaster. There is also another excellent plaster which Galene vseth in the Vigour of an inflammation and is thus made.

Rec. medullæ panis frumentacei j.pounde.

Let it stepe in whote water for the space of an howre, then straine it and put to it.

Mellis optimi iij.vnces.

Make of these an emplaster and apply it to the inflãmation. But yf the inflãmation be as they call it in declinatione you must only vse medycines to digest which may euapozate the matter remaining: yf the inflãmation doth ende by euapozation or discussion. But if it turne into an apostеme then you muste vse medycynes to suppurate, to open, and to mundyfye,

of

of which you shall haue a large discourse in my booke of tumors agaynst nature: and also in my booke of curyng vlcers. The fourth scope of remouing or rather defending the inflammation from accidentes, as dolour, feuer, apostume, and such lyke, requireth diuers and sundrye remedies, whiche because they be accidents also chaunsing in wounds, I wyll entreate of them in their proper Chapters.

Of remouinge and takinge awaye distemperaunce in woundes. Chap. iii.

That distemperaunce whiche happeneth to mans body, whether it be hote, colde, moyst or dry, or els cõpounded of these simple, Galens & al the Grecians comprehend vnder ye name of Dyscrasia. Of which if to the wound there commeth a whote disposition, which you maye easely coniecture by the great rednesse and vesication you muste infrigidate the place not with Henbaine, or Mandrake, but rather with Roses Plantaine and vngnento albo, whiche doe as well desiccate as moderatly make coulde. But if the distemperaunce be colde, which you maye Iudge by the softnes and leadye colour of the skynne: You shall put these away by medicines

contrary in qualitie, whiche doe moderatlye heate. So that you maye not applye Rosen, Piche, or Aspaltum, but wyne, vnguentum nigrum, or fuscum, or Basilicon. So in lyke maner if the wounde be to moyste or to drye, they muste bee cured by theyr contrarves. And here is to be noted that if the distemperaunce be in heate & moysture, or in heate and dryness: in colde and moystenes, or colde and dryneſſe, then your medicines vsed in the simple distemperatneſſe, muste be mixed together contrarye to the compound distemperaunce.

Of conuulsion whiche happen in woundes. Chap. iiii.

SPasmos whiche we call conuulsion is no other thynge then a depravate motion chauncing to the voluntarie facultie of movyng through sickennes. Conuulsion chanceth three sundrye wayes. By repletion, by inanition, and by societie or participation with the brayne. The generall methode in curynge these three sortes is to holde strongely, & to chafe and annoynt them wyth oyle of Lilies, or elles with common oyle in defecte of it. The conuulsion springyng by inanition is cured in this maner. Fyrst foment the place wyth oyle, or elles with

with Hydrelcum made warme. Also if no other thyng be let or impediment, you shall vse a bathe in whiche is boyled the head & fæte of a shepe, goate, calfe, or lambe. Also in whiche is put Malowes, Althea, Violet leaues, Beates, and Mercurye, puttynge to it the thyrde parte of oyle. Some there be whyche with great profite doe vse this linement folowynge, annoynting with it the ridge bone or spine of the backe and all the ioyntes.

The liniment.

Rec. Olei violarum, iiij. vnce.

Amygdalarum dulcium,
Pinguedinis gallinæ,
Medullæ crurium vituli
} ana. vj. drames

Pinguedinis vituli,
Hædi,
} ana. x. dragmes.

Boyle all these in the decoction of Malowes and rootes of Althear, vnto the consumption of the sayde decoction, then straine them & make a liniment of them, & vse it as I haue afforesayd. But if the conuulsion come of fulnesse, you muste cure it by euacuation of the whole bodye. But there be two wayes to euacuate, that is to saye by lettinge bloode and by purgynge.

But we let bloode in those bodies in whiche there is abundaunce of bloode or elles where inflamation hath caused conuulsion, although there be no abundaunce of bloode. But if the fulnesse be of humors, then you must purge that which doeth offende whether it be fleame, tollor or melancholie. But grosse and viscous humours are to be expelled w̄ Hiera, Picra, & Agaricke. You muste also vse sharpe Glysters, also Gargarismes, Apophegmatismes and næsing, that the grose fleame maye come forthe by the nose & mouthe. The body beyng thus purged and let bloode, annoynte the necke, armepittes & flankes with this lynement folowing.

Rec. Oleorum liliacei,
Costini,
Spicę,
Laurimi, } ana.ij.vnces.
Castorei,
Euforbij, } ana.halfe a dragme.

Myxe these together and vse as is before sayd. Also Rogerius and Theodoricus doe muche in this sickenesse prayse the vnguent, whose composition as in this maner.

Rec.

Rec. Olei muſcellini, j.vnce.
Petrolei, halfe an vnce,
Olei communis, } ana.iiij.vnce.
Butyri, }
Styracis calamitæ, } ana.ij.dragmes.
Rubræ, }
Maſtiches, }
Olibani, } ana.half an vnce.
Gummi hæderæ, }
Ceræ, an vnce,

Make theſe in an vnguent accordyng to arte, and with this vnguent moderatly heat, anoynt the whole necke, and all the ſpine of the backe. Laſt of all if the conuulſion commeth by conſent and ſocietie of partes, and ſpringeth of dolour, you muſt cure it by medicines called Anodyna, of which we haue made mencion in ỹ firſt Chapter of this thyrde booke, and alſo in oure Antidotarie. But if it appeare by the bytyng or ſting of anye venemous beaſt or Serpent, you ſhall applye bores to the wounde, and make a plaſter of Triacle and laye to the place, and vſe the ſame methode of curyng that is ſet out in the laſt Chapter of the ſeconde booke. And yf conuulſion inſueth becauſe ſharpe and corrodyng humours doe byte & fret the mouth of the

stomacke: then with all diligence you muste prouoke him to vomite, & after strengthen the stomacke bothe outwardlye & inwardlye wyth apte & conuenient medicines, folowynge the counsell of some expert Phisition.

Furthermore in all conuulsions this is a generall rule, you muste strengthen & corroborate the brayne. Therefore shaupnge the heare, you shall foment the head, necke, armepittes, flankes, spine of the backe, and ioyntes wyth oyle of Lilies. If these doe not take place, then accordynge to Galenes doctrine, you shall cutte the nerues a sundrye. For (sayeth he) it is better to suffer hurte & losse of one parte, then to looke for a certayne and ineuitable death.

Of the the Palsey comminge of a wounde. Chap. v.

PAralysis, whiche we in Englishe call the Palsey is the relaration & molifynge of the nerues, with losse of feelynge & mouynge of one syde or parte of the bodye. This accident sometyme folowth vehemente conuulsions, & chiefelye after greate woundes in the head, and in the spine of the backe. It doeth showe forthe hys myghte. The cure of the Palsey is thys wyse. Fyrste you muste euacuate

euacuate the bodye by purgynge of the humours, & euacuating the bodye. Yea by letting of blode also if necessitie requireth. Further to diuerte the flure whiche goeth to the resolued parte, vsynge also a conuenient diet, in all whiche it is necessarye to consulte with the learned Phisition. These thynges beynge done, then let the Surgian wyth all diligence applye locall medicines, amonge whyche many doe vse emplasters, cataplasmes, vnguents, fomentations, boringe, & dyuers other remedyes. But Guido (out of Welue) hath chosen a moste precious liquour, and agaynst this accident of moste wonderfull effecte, wyth which he annoynteth the spine of the backe, the necke, and the parte resolued, and surelye there is no remedye comparable to it. Yea, and Guido leauynge all other medycines helde hym selfe well satisfied and pleased onelye wyth thys so precious a treasure. But I wyll omitte the prayse of so noble a lyquour seynge my witte is to simple, and my penne to rude to do that herein is required, and therefore I let that passe, and wyll showe you the composition.

Rec. Myrrhæ electæ,
Aloes hepaticæ,
Spicæ nardi,
Sangui. draconis,
Thuris,
Mumiæ,
Opopanacis,
Bdellij,
} ana.ij.dragmes,

Carpobalsami,
Ammoniaci,
Sarcocollæ,
Croci,
Mastiches,
Gummi arabici,
Styracis liquidæ,
} ana.ij.dragmes.

Ladani electi,
Succi castorei,
} ana.ij.dragmes.se:
Musci, halfe a dragme,
Terebinthinæ optimæ ad pondus omnium.

Beate all those to pouder, that are to bee broughte to pouder, and mixe all these wyth the Turpentyne, and put them in a vessell of distillation and with a softe and gentle fyre

fyre drawe oute this moste precious liquour, and if to this composition you dyd adde suche Herbes as are vsed in curynge the Palsey, you shoulde make youre medicine so muche the more precious.

Of Syncope or swouding through cure of the wounde. Chap. vi.

Galene in the twelfeth booke of his Therapeutike methode sayeth, that Syncope is a sodeyne decaye of strengthe, commynge through immoderate euacuation, vehement dolour, continuall watchynge, intemperateneste of the principall partes, or vehement perturbations of the mynde. But Syncope whiche foloweth in woundes springeth for the more parte of greate effusion of bloode or elles of vehement dolour. And you maye easelye coniecture the commynge of it, by the weakeneste, pulse, paleneste of face, colde sweates aboute hys necke and temples. And this accident is not lyghtlye to be regarded because it so sondenlye commmeth, and is as it were the image of death. Therfore comfort the wounded man by all meanes possible. Suffer no great company to be where he is, and before

this accident come, giue him a peafe of fyne White bread fopped in the beft Wine you can get, into which Wine you fhall put Rofe water Bozage water, & a cake of manus chriſti perlati, and after you haue tofted of the bread, geue hym of the Wine to dzinke, & comfozte him with fweete fmelles, & chafe his temples with Rofe water, & if he begynne to fownde caft colde water on hys face, & chafe & rubbe his temples with your handes, pull him by the nofe, exclame & call him loude by his name, rubbe his handes, & pull him by the eares, & doe what you can to reuiue & quicken his fpirites as is the accuſtome of learned Phiſitions.

Of alienation of the mynde comming by the reaſon of the wound. Chap. bii.

DElyrium oz alienatiõ of the mynde is a motion depzauate of the pzincipall facultie; takynge hys begynnynge of euill fumes aſcending to the head, & alſo of intemperatnes of the bzayne: it doeth diuers tymes fozfune the bzaine to ſuffer of it ſelfe, & ſometyme by conſent with other partes. But I wyll ſpeake onlye of that alienation of mynde, whiche commeth by conſent of parts. Therfoze if that alie-

nation

nation of mynde apprehendeth the patient after he be wounded, you must call some skilfull Phisition, which with potion, frictions, binding of the hands & feete, sharpe glisters here to apte to attracte the fumes & vapours from the head, and when the vigour of this accident infesteth, it is good to powre on his head the decoction of Popie. For Galene sayeth we muste labour to astopne somewhat the brayne, & prouoke slepe by all meanes possible. Auicen sayeth that manye haue bene deliuered of this accident by vsinge certaine dayes the decoction of Bryonie rootes. And thus I haue set out the most notable & perylous accidentes, whiche happen in woundes, with their intentions curatiue, and proper medicines vsed in the same. Wherefore I thinke it good here to finishe this thyrde Booke.

FINIS.

The fourth booke of

the Enchiridion comprehending the maner of curinge fractures, and luxations: by Thoma Gale Maister in Chirurgerie.

Seyng I haue hetherto in theyr proper bookes set oute the cure of all those woundes, whiche maye happen in the softer partes of mannes bodye, as in the flesshe, muscles, vaynes, arteries, nerues, tendons, ligamentes, and suche lyke: and haue further shewed sufficiently the methode to put awaye suche accidentes as happen to greate woundes (for to greate woundes commeth greate accidentes) tyme nowe taketh me by the sleeue, and sayeth directe thy penne, & addresse thee to wryte of those woundes, whyche happen in the harde partes of mannes membres, that is to saye, in the bones. Suche bee those woundes whiche are called fractures or breakynge of bones, in Greeke Catagmata, and also of luxations and dislocations of the same, whiche because bothe are affections commynge to the bones, I wyll wryte of bothe in this fourth and laste booke of thys Enchiridion, begynnynge fyrste at the fracture

fracture of bones, whyche done, I wyll also intreate of dislocations.

Of the trewe and perfite cure of bones fractured. Chap. i.

BEfore I do take in hande to intreate of the cure of bones fractured, I wyll set out what a fracture is, that thereby it maye bee the better vnderstande, that hereafter shall bee wrytten. Therefore a fracture is a solution of continuitie made in the bone. Of bones fractured: There bee there differences. One when the bone is broken in lengthe, another when the bone is fractured ouerthwarte, the thyrde when as the fracture is oblique or crooked. Albucasis and other latter wryters make the differences of fractures, not accordynge to the bone fractured, but after the place affected, as if the nose be broken, or the brayne panne, or Jawes, ribbes, backebone, armes, thyghes, legges, fyngers, or other parte: whych in deede be not differences of fractures, but as I sayde, of the place affected, accordynge to the nature of which the bones broken haue spydier or longer tyme or they can bee vnited agayne together. For the Cranium is ioyned together in fiue and thyrtye dayes, the arme or legge in the space

space of fourtye dayes, the fossilles aboute thyrtye dayes, the nose taketh perfect consolidation in eyghtene dayes, the ribbes in one and twentye dayes, the Jawes, the bones in the hands, & feete, aboute twentie dayes. And so in lyke sorte is to bee spoken of the tyme of curyng other bones fractured accordyng to theyr natures, also the tyme maye bee longer or shorter, accordyng to the age of the Pacient, tyme of the yere, dyet & order of lyfe. All whiche must bee diligentlye considered of hym that wyll appoynte anye tyme determinatelye in curyng of bones. But nowe to the trew & perfecte cure of bones fractured. And for because the fracture is a solution of continuitie, there is required the bnition againe of the same. But to the bnition of the fracture are required foure scopes or intentions. The first is that the parts of the broken bones be ioyned & put together in their proper place. The seconde intention is that they beinge so reduced to their naturall forme maye so be conserued, & kepte wythoute motion. The thyrd scope is that the parts of the broken bone may be conglutinated & ioyned together by engendring of callus. The fourthe and last intention is to correct those accidents, which do come after the fractures of bones. Of these foure scopes & intentions according to my poore knowledge I wyll seuerally intreate.

Volue

How the partes of the bone fractured are to be vnited together and put in their proper place. Chap. ii.

FIrste of all it behoueth to note diligentlye whether bone broken be out of the naturall place or not, which you shall knowe by these signes sayeth Cornelius Celsus. For if the member where the bone is fractured doeth extende it selfe & stande vpwarde, and is with pricking, and when it is touched it showeth an inequalitie: These bee sure tokens and sygnes that the bone broken is out of his natural place, wherefore after the counsell of Guido de Cauliaco, the member is decently to bee extended, and that parte of the bone that is depressed is to be lyfted vp, & that other parte whiche is standynge vpwarde muste be put downe, & thys with so muche lenitie & smale payne as is possible, vntill the endes of the bone fractured doe meete & bee vnited & broughte to theyr naturall forme & place. Neyther is this possible that the bones fractured & brought out of theyr naturall place can bee reduced & rightly vnited & placed but with some force more or lesse. So that if the member be smale & of no greate strengthe, as the finger or other lyke member, one man may wel extend & stretch it out applieng his one

hande

hande on the one parte, & the other hand on the other parte of the broken bone, vntyll bothe endes of the bone fractured doe meete and ioyne together. But if the member bee greate, hauynge stronge nerues & tendons, then one man is not sufficient, but there is required two: specially where the fracture chaunceth in the thighes, legges & armes, of stronge & robuste persons. But you muste diligentlye take heede that the member bee neuer to vehementlye or inoderately extended & drawen out, for that doeth brynge (specially in harde & drye bodyes) vehement dolour, feuers, conuulsions, & sometymes the Palsey: yea it happeth often by this meanes, that the fibres & threedes in the heades of the Muscles be broken. Wherefore there is muche wysedome & discretion herein to be vsed. But nowe to that from whence we are digressed. Fyrste the sicke man is to be set in a chayre, or elles if it bee more conuenient, layed on hys backe on the bedde. Then two men for thys vse prepared, you shall commaunde the one to holde with his handes the parte of the member aboue the fracture: and to the other, to laye hys hande on the neyther and lower parte of the member, vnder the fractured bone. And thys beynge done, willynge them so longe to stretche and put oute the member vntyll bothe endes of the bone doe meete, then thou

thou wyth thy hands shalt hansomly forme it & put it in together, laboring to bring it to hys natural figure & forme. But if the member be such as that with their handes only, they are not able to extend the same then you must haue bands of which the one shalbe fastened aboue the broken bone the other vnder: and so the one man placed at the sicke pacientes head and the other at his fete. They shal strech and extend oute the member as is suffycient with the bands in their hands. And thys is a sufficyent token ỹ the bone broken is reposed in hys righte place, and that both endes be vnited together: when that the patient feleth a releasing of his payne and Dolour. The bones being thus ioyned together, lest that they should go a sunder again, it is necessarie to rolle and bynde it in suche wyse and maner as shal here after be set out. And if it fortuneth that the broken bones be not vnited but remain out of their place a few dayes there accostomably followeth great inflammation and no smale perill and daunger to the nerues & tendons. And thus briefly and sufficiently I haue set out the first intention. There is also an instrument vsed to extend out the member wyth, of whych Hippocrates and Paulus maketh mention: which you may prepare and vse, but I omyt it and vse the waye aboue sayde as more apte and wythoute perill.

Howe the broken Bones united and ioyned together aptly: may be kept and remaine in the same figure, so that they maye come to their former estate. Chap. iii.

When as the broken bone is reduced to hys right place & is formed according to his naturall figure; it is very expedient to kepe it in the same, which cannot be in any wise if that the mẽber be moued. Wherfore it is necessarye by all meanes possible to kepe the members wout motion. Which thing although the pacient perhaps in the day time wil carefully regard: yet at night whẽ depe slepe dothe occupy his sences he shal of force neglect. Therfore ẏ as well day as night: sleping as waking, the mẽbet may be conserued wout motion, it shalbe necessarye to vse apt and conuenient ligature & rolling. But before you do go about to rol the mẽbre, it is very good to mixe the white of an egge & oile of roses together & wet therin a soft linen clothe of such bignes as may compasse not only the place where the bone is fractured, but also some what of the sound partes. Then this being applied to the affected part, you shal nert bynd and roll the membre: in which you must diligently regard that you compresse not the member by to hard rolling: & so the nourishment cannot come to the part, and also dolour and pain may cause flux of humors & inflãmation; neither must you bynd

it to slacke & lose, for then the broken bones wyll separate again and go in sunder. Therefore you shal vse a meane herein that you bynde not the member to straite nor to lose, but folowe herein both your owne discresion and also the feling of the patient. And as touching your rollers you must haue two made of soft cloth, whose bredth & latitude must be such as in rolling there be no losenes, widnes, & plaits: the lenth of these can not certenly be showed, but must be according to the bignes of the fracture & thicknes of the member. The beginning of the first roller must be vpon the fracture, & so rolled about iij. or iiij. times, & then rolling vpward vntil you com to the sound parts which must also somewhat be rolled. So by this meanes the bones vnited shal more firmly remayne together and the flure of humours staied ỹ they cānot come to ỹ affected part. The beginning of the second rol must also be vpō the fractured place, going iij. or iiij. times also about the same, & so continuing downward vntyl you haue compassed the soūd parts: which done, you must wᵗ the same roller ascend vpward again vntil you come somwhat aboue ỹ first roler. Therfore this roller must be half as long again as ỹ first roller is. The vtilitie of this second rolling is that it putteth that is superfluous vnto the lower parts, & suffereth not any flur of humours to infesse and noye the parte affected.

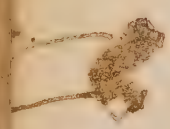
These rollers would be wet in water and wine mixed together before you do vse them. And yf there be anye vehement paine or inflammation then the member would be wrapped about with fine woll wel carded, or els w̄ stuffes wet in Oxicratum. And the ligature or rolling would not be hard but such as mai defend and kepe the vnited bones together. Furthermore because these bindings and rollings are notable both to defend the member from accidentes: and also to kepe the member together & confirme the same: Hippocrates vsed certaine plasters or cerotes, or such like which must be put vpon the two rolers and is as it were the thyrde ligature or rolle. Among which is vsed ceratum humidum, made of ware melted in oile of Roses. But yf that there be besides the bone fractured, the solution also of continutie in the flesshe then you shal not in any wise vse eyther cerote or oyle because it wyl make the vlcer filthie and stinking. But in their place to vse plumaciols that be long, dipt in red and stipticke wine. And one thing which kepeth the member from dolour and paine is after that the same be rolled and aptly put together to place it in his naturall forme so neere as you can. And it is moste nye vnto the naturall forme and figure, when it is so layde as is wyth leste paine and greefe. But because this forme and figure should be surely conserued and kepte

and

ind, accidentes put away, the later Chirurgians
aue vsed to put aboute the ligatures certayne
splentes at the first dressing: binding them so a-
out the member as the patiente, or accidentes
nay suffer. Galene and the old writers vsed not
splentes before the vii. or ix. daye: notwithstan-
ing it is conuenient to vse the splentes at the
eginning, so that they through straite bindyng
ompresse not the member, and make Dolour &
nflammation. The splentes muste be equall,
nothe, euen, not croked or rugged, and in the
niddes thicker then in the other parts that they
nay be the more able to strenthen the member
n that place wheras the bone is fractured. The
oay and order in applynge splentes is in thys
oise. There must be clothes iii. or iiij. fold dypte
n Rose water and layd vpon the rollers accor-
ing as the mẽber requireth. Then the splentes
nuolued, and wond about with wolle or cotten
must be placed round about the mẽber a finger
reth a sonder, and bynd them moderatly & tent-
y that you compresse not the member. And in a-
y case take hede that none of the splentes touch
ny ioynt, if anie be neere the fractured bone: for
hat wil make vlceration and inflammation in
he same ioynt. Therfore if the fracture be nere
o any iointe you muste in that parte make your
splents shorter smaller and lighter. And yf no
olour, no inflãmation, no itching, no vlceratiõ,

commeth

commeth to the fractured part, then you may let the splents remain on vnto the xij. day or .xv. day yea or vnto the .xx. day. But if any of these happeneth then it shalbe conuenient to vnrolle the membre the thyrd day and foment it wyth luke warm water wherby both the sharp & accoyding matter is washed the paine ceased & the itchinge put away. And thus much touching the second intention.



Howe the partes of the bones broken may be conglutinate and ioyned together. Chap. iiii.

SEing that the fractured bones cannot be conglutinated & made to growe firmely together nether by apt & conuenient rolling nor splenting nor by puttinge of them in there naturall forme and figure except there be made somwhat to growe out of the norishment of the bone which may cause them to close & growe together they call this callus, which like a glewe doth glewe them together: therfore the thyrd intention is to make this callus to growe by al meanes possible. But thys must be ingendred of grose & earthy parts such is the norishment of the bones. Thys callus after the mynde of dyuers doe begynne to growe about the tenth or fortenth daye. And that it doth beginne to growe you shall perceyue and iudge by these signes and tokens. The dolour and payne is aswaged; the inflamma-

tion

tion ceaseth: the tumour vanisheth awaye: the naturall colour of the member commeth againe to the same. And for that the chefe and principal way to make callus grow and ingender standeth in apte and conuenient diet, I wyll breefely vtter the same vnto you. Although at the beginning of the fracture, Hippocrates counselleth that the pacient doe vse a thinne and small diet: and that he doe abstayne from flesshe & wine for the space of .v. daies, yet now whē as our scope is to ingender callus you must licence him to vse a more large diet & meates that make good iuice, & that grose & somwhat viscous for of such nutriment the bones are norished & callus groweth. Therfor thei comēd much fine & pure wheat boiled in cleane fountain water while the wheat do brust, & the water being so concocted is somwhat thick. They cal thys wō vs in england frumentie potage. And I suppose it to be that which diuers cal Alica. Also the heads & fete of beasts are very good in this case, chefflye of a kid or els a wether. For these do much norish & be of grose & viscous iuyce. Also giue him to drinke good redde wyne when as he goeth to meate, but let it be moderatly taken. The bignes of callus muste not be eyther bygger or lesser then is requisite, for beyng bygger it bryngeth payne to the muscules: and yf it be lesser then is it vnable to defende and strengthen the fractured bones.

How callus shalbe kept that it be nether to byg or litle, you shal see set out in the chap. folowing.

How the accidentes which happen to fractured bones are to be remoued and put away. Chap. v.

THis fourth scope and intention although it be the last in order, yet is it not the least in vertue and vse. For it doth show how to remoue all accidentes and thinges against nature which doth let and hinder the curing of the fractured member. Suche accidentes for the most part are dolour or paine, inflammation, itching a wound, immoderate drines or moyster, letting & hindring the generatiõ of callus, gangriena, hardnes, and the quantitie of callus to much or litle. These as I sayd be the chefe enemies to hinder natures worke, & I will set out the waye to expel and put away euery of them beginning first with the accidentes called dolour or payne, & with inflammation, named of the Grecians phlegmone. Therfore if these accidents do infest and besege the fractured member, after it be bound rolled & dressed: you shall with spede lose the ligature and take away the roller, & then the member being bare and naked, you shal foment it with oile of roses, vineger and wyth other like medicines before remembred in the

the.2d boke where I writ perticulerly of the cure of these accidentes. Nether shall you vse agayne eyther ligature or splentes before the dolour be aswaged and the inflammation ceased, except it be onely to strengthen the member and keepe it together. But these accidentes beynge erpelled then vse your splēts & rolling as you did before. But if this itching or as they call it in Latyne pruritus with sanies or matter happeneth, then Hippocrates and Galene vse to foment the place with water temperatly hote. And the later Chirurgians in the like case doe applye salt water, vnguentum album, vel vnguentum populeon. And bind the member as is aforesaid. Further more if to the fractured mēber there happeneth a wound ether at the breaking of the bone, or els made of the Chirurgian, that he maye take oute the shiuers of the bone molesting the muscules, or how so euer it doth happen you must if there be any flux of bloud labour to stanch and stay the same with apt and conuenient remedies set out in this boke. If inflammation followeth to the wound it must be repelled. If the flesshe be brosed and contused, then scarifie the parts for feare that gangrena doth follow. And if it so happneth that gangrena doth follow, or any deuouring putrefaction, then you must cure it as is set oute in our method of curing tumours against nature. And if none of these happeneth then you shall

vse the like medicines to the cure of the wounde that you do to grene & freshe wounds. Furthermore if the bones be immoderatly dry whereby the growing of callus is hindred, it shalbe conuenient the thyrd or fourth day to foment the place w̄ water: and when as the flesshe do rise in a tumour then cease further to vse fomentation: except you do intend to euaporate & digest the multitude of matter, then cease not vntil the tumor goeth away. And if moistnes foloweth in ỹ fractured membre & letteth the ingendring of callus, you shal put it away with conuenient ligature and roling & things that doth moderatly exicat. Furthermore you shal giue diligence when callus doth grow that it may be staied lesse that it war to great: or increased if you think it wil not be of conuenient bignes. And both these pointes do consist in diet, in the quantitie and qualitie of fomentation, and in conuenient medicynes. Of medicines those are to be vsed whyche doe moderatly heate and is made plaster wise. Among which the piched emplaster is not the lest of price, for both doth augment the callus & draweth norishment to the broken mēber. This is to be vsed when as we thinke to make the callus bigger: but if callus be to big then you must make it lesse w̄ medicines which doe digest & be astringent. Also w̄ cōpressing ligature & a plate

of

of lead applied to the callus. Also frications & fomentations made wᵗ oile salt and salt peter, or wᵗ salt water made hot. But if the callus be growē to much & that into a hard & stony substance, then you must cut the flesh and wᵗ knifes & other conuenient instrumēts, the callus it to be minished. Also it fortuneth ẏ the callus doth not grow at the accostomed time, which commeth of sondry causes, ẏ is to say ether of immoderate fomentations, or vntimely motion, or thorow the multitude of rolling, or for ẏ the body is not sufficiently norished, which apereth whē as the mēbre affected is lener & slenderer then it was naturally. Therforé wᵗ al diligence you must loke to thys thing, aplying hote atractiue medicines to ẏ part & cause his diet to be more larger & causing the paeient to imbrace mirth, & banish heuines and such passions of the mind as may bring the body into a melancolike disposition. And this shalbe ẏ signe and token ẏ the bones fractured be conglutinated wᵗ callus, when as the rollers & thynges wrapt about the mēbre do apere blody no woūd beinge in the mēbre. Which thing I suppose do spring when as the substaunce of callus cometh togither & going into the holow parts of ẏ bones some droppes of blod are thurst out. And thus much shall suffice touching, the methode & way to cure the bones fractured now will I speake in like sort of luxations, and dislocations.

What

What a luxation or dislocation is, and of their differences. Chap. vi.

ORder euer requireth that what so euer any do take in hande, that firste or he procedeth further, he do exactly know the nature of the same, which he cannot do otherwise then by difinition & description. Therfore a luxation is the goinge out of a ioynt from his naturall place, whereby the voluntarie motion of the member is hyndred: the Grecians do name this affection exarthrema. There are two onely differences of luxations which are taken according to the bignes of the luxation. For if the ioynt be quit oute of his socket and place, then it is properly called a luxation: but if it be but onely a litle remoued, it is then not named a luxation but a wrynche in latyn Subluxatio, and pararthrema in Greeke. It fortuneth that a ioynt may be fowre maner of wayes dislocated or wrinched: that is to saye, forward, backward, higher, and lower. Excepte certayn which cannot be put out of their place, or els but one or two of these wayes. But for as much as there ryseth no great vtilitie by numbryng of suche ioyntes I wyll leaue of to make mention and wyll intreate of the reducynge of ioyntes dislocated into their proper places. And to thys there are fowre intentions to be obserued. The firste to bring ỳ ioynt into hys natyue

and

and prestinate place. The second is the conserua tion and keping the ioynt so put in, that it doth not slyppe out agayne. The thyrd is to defend the member from accidentes as dolour inflammation flur of humours and such like. The last scope is to put alway those accidentes yf any doe folow: these in their proper places I wyl set out beginnyng wyth the fyrst intention.

How the lurated ioynte is to be reduced to hys naturall seate and place. Chap. vii.

Seyng that the ioynt dislocated and out of his naturall place requireth the reducing again of the same into his wonted seat: you shall extend the member into diuers parts decently as is required, vntil such time as the space betwixt both bones is empty and voyde. Then the bone whych is out of hys place is to be put into the cõtrary parte from that where as he is & so placed in hys natyue seat, that the emptines of the socket maye agayne be filled with the bone. But this extension and streaching oute of the member must be done tenderly and wyth so litle paine as is possible. Neither is there one way of extending and streaching out of the lurated mẽber, for somtime it must be done with the hands only, some time with bandes, and some time wt instruments apt and conuenient for the same, as ap-pea-

appeareth in Hippocrates booke De luxatis & fractis.

How the member lurated & brought in the naturall place: may be conserued and kept in the same. Chap. viii.

When as the member lurated is brought in to his natural place you must wyth al diligence possible labour to confirme the part and kepe the member from slypping out again. Wherfore you shal anoint the place wt oile of roses and then a fine & olde linen cloth wet also in oile of roses shalbe applied to the mēber which done you shall vse stupes & clothes wet in the white of egges & lay them also on the ioynt. Last you shal wet your rollers in water and vineger mired together and rol the member therwt. And if necessitie doth require you maye furthermore make splents of lether or pasted paper and apply thē about the ioynt. But giue diligence lest the part be to strait bound & rolled for feare of inflāmation. These thinges thus finished laye the member in his natural figure & shape. Neyther shal you (except some great and ill accident happen) lose the roller & open the member, before the viij. or tenth day at the lest. Auicenna willeth that in this case you shall not vse hote clothes or medicines for feare of flure and inflammation but rather some refrigeratiue cerote.

How

How to defende the member from accidents and to put them away if they happen. Chap. ix.

The member lurated beyng reduced to hys natural place and confirmed in the same, & also hauing his perfit shape & figure: there remaineth to defend the same frō ill accidentes, or if such happen or then be called to the cure to put them away. In the defending the member you shal labour to kepe the member from flux of humours for if there be a flux, then shal there follow both Dolour and inflammation. Therfore strengthen the member with apt & conuenient, medicines set out in diuers parts of the worke. Also let him vse thin and smal diet, purgien, and letting blood: for these do meruailously auert the flux from the affected member. But if it chance that there is already accidentes or thou come to the patient, as dolour or inflammation, then thou shalt not put the member lurated into the place before thou haste cured the accidentes. Therefore these thinges sufficientlye declared as much as the nature of an Enchiridion requireth touchinge the methodicall curinge of woundes bothe in similer and instrumentall members, also of fractures & dislocations I will speake brefely & taken of members and then seace my penne for this present.

The

The methode and waye howe to take of a member when it is mortified and dede: and of a new pouder by me deuised to staye the flux of bloude. Chap. x.

IT happeneth often tymes that through great accidentes which falleth vnto woundes thorow gonneshote, that the hole member commeth to mortification. So that of necessitie it must be taken away. The same accidentes also I haue knowen to chaunce vnto fractured members: and many other wayes it hath happened the members to come to gangrena and sphacelus by diseases of which you shall finde in other of my workes a more ample discours where as I intreate properlye of those grefes. But for that my whole intention at thys present, is onely to set out the way how to take of corrupt and mortifyed members, I will leaue them, & go to my purpose. If the legge chaūce to come to such corruption, beneth the knee, that of necessitie you are constrayned to take it of from the other parte: It is beste to cut it of, one good hand bred beneath the knee: So shall the partye haue a restinge place for a stylte to go vpon: And althoughe it nedeth no more but to take of hys foote onely, yet for as much as the

rest

reſt of his legge ſhoulde be but a trouble vnto him. It is better to take it of vnder the knée as I haue ſaid before, for the paine will be al one, and the daunger is leſſe in that place. And further you muſte take diligent heede that you make your inſition aboue the corrupted partes, for els the fleſh or bones being corrupted aboue the place where as you make your inciſion might cauſe you to haue a new worke, to the great greſe and paine of the pacient, as I haue ſene often times. And therfore if the corrupti-on haue taken the ioynt of the knee ſo that it can not be cured but that of force the member muſt be amputated and cut of, then take it of three fingers aboue the knee. For in anye wyſe take it not of in the iuncter of the knée, for that is very dangerous and contrary to the opinions of all the auncient writers: that order you obſerue in taking of the leg, ỳ ſame ſhal you folow in taking of the arme. But before you beginne this worke, you oughte well to conſider wyth your ſelfe, and alſo to call other expert men to you, to ſée the pacient, conferring wyth them, whether there be any way to kepe on the mem ber and to cure it by any waye poſſible, for it is great ſlaunder to the arte of Chirurgerie, and alſo matter in conſcience, to take awaye anye member, whych other wayes mighte by arte be cured, although it be both paynefull and longe

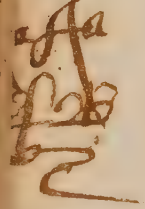
or it be done. But if there be no other way but that you are constrained to take away the member, or els the partie cannot be cured, and that in processe of time death must folow, then it is better to cut of a leg or arme, then al the whole bodye should perishe. Now when you intend to take of a leg or an arme, first prepare the bodye, that is to say, yf it be ful of ill humours to purge it with conuenient medicines, and also to giue the patient such diet before, as is conuenient. That is if the patient be feeble and weake and hath bene longe sicke, then giue him meates of good norishment to make him stronge, that he may be the more able to suffer the payn when as he shalbe dysmembred, leste he faynte and fall into swonnynge, and thus doyng fyue or syre dayes you may procede to the taking of, of the member, whyche is done in thys maner, firste you shall make a defensitiue as hereafter foloweth.

Rec. Boli armeni viij. vnces.
Farinę hordei iiij. vnces.
Sanguinis draconis } ana .ij. vnces.
Terræ Sigillatæ }
Olibani j. vnce and a halfe.
Aceti iiij. vnces.
Albuminis ouorum. q.s.

Take all these in pouder, that are to be made

in pouder, and incorporate them with the vine-gre, and whites of egges. Then spreade this vpon a cloth iiij. fingers brood, that it maye go. iij. or .iij. tymes about the member. This defensitiue must be layde on so nere about where as you will take of the member as is possible, so that when you make your insicion, you must cut so ney this defensiue as within the breth of one straw, or half an inch at the furdest. Thys defensiue must be very hard rolled aboute the member the night before you intend to take it of, and the harder it is rolled the better it is, for the hard rolling stayeth the bloud and maketh that in taking of the member there commeth no great flux. And furthermore by reason of the hard rolling it letteth both the animall & vitall spirites to passe to the affected part, by meanes whereof it is so astonished, that the pacient feeleth not half so much paine, as he thuld if thys were not done. Then when as you come to take of the member, you shal prepare all thynges readye that serueth for hys dressynge, and before you make anye Insicion putte the partye in verye good comforte, declarynge vnto hym that the feare is muche more then the payne. And yf you be disposed to take of anye member wythoute actuall Cauterization: you maye aptlye doe it, by potentiall Cauterization.

Among which I haue deuised one that by conti nuall profe I haue founde profitable and therfore I wyll show the composition as foloweth.



Rec. Aluminis succarini
Thuris
Arsenici } ana.ij.vnces.
Calcis viui vj.vnces.

Make them all in fine pouder, and put vnto them one pynte of stronge veneiger, and boyle them on the fyre, continually sturryng it, tyll the venegre be consumed, then let it be set in an ouen or in the sunne tyll it be perfytely dry, that you may make it in pouder, and when you wil vse it, take of this pouder, iij. Vnces, of Bole armoniack half an vnce, of Puluis alcamisticus one vnce. Put al these together and make them in very fine pouder, and so you haue the pouder sublimed and prepared to restraine bloude when you wyll take of a member wythout hote yrons. And this medicyne I haue founde to be most sure of al other not only in taking of, of mēbers: But in manye other grefes cured by the art of Surgerie, and I haue named it in al my Bookes Puluerem secretum. And before you make your Insicion take .iiij.vnces of this pouder and incorporate it wyth whytes of egges, then

then make a stuffe of towe as large as the ende of the member that you wyll take of. And dyppe it in Uenegre and presse it out agayne. Then spreade your medicine, made wyth the pouder and the whyte of Egges, open the same towe, after strowe a lytle of thys drye pouder vpon that, so makinge many lytle bolsters of towe, to lay vpon this great stuffe as nede doth requyre, for the better restraynyng the flure of bloude. Now when you haue all thynges prepared, wyth bolsters and rollers, and other things thereto pertayning, you shall go to the pacient and comfort him as I haue sayd before couering his eyes and setting him in some place conuenient, hauing certayne persons mete for the same purpose, to holde hys bodye and hys armes that he let not your operation, and other apte personnes to holde the member that you wil take away. You shall then quickly and rely with a sharpe insition knife, cut the flesshe round about to the bone, wythin halfe an ynch of the defensiue, that was before layd on. And one thynge you must take hede of: there lyeth an nerue betwyxte the two bones of the legge beneth the knee, which you must cutte a sunder wyth your insicion knife, lest that in sawing of the bones, (thys beyng not cut a sonder with you Insicion knyfe as I sayde before,) it might be so plucked and torne with the saw, prouoking

great accidents as lincope, spasmus, dolour, yea and deth also, which I my self haue often times sene. Then when you haue made your inūcion perfite, with a fine salue you shall cut a sunder the bones spedely, and with as litle shaking of the member as you maye, then lay vpon the endes of the bones a lytle lint dypped in oile of Roses and so wrong out again, the oyle beyng first made warme. And next lay on your stufe prepared as I haue said before w̄ your pouder & the whit of egges, laying vpō that other stufes & bolsters to restrain blood as you se cause: then must you roll it accordyng to art, to kepe on the stufe very close that it may the better restrayne bloud. Prouided alwayes that ye laye a defensiue aboue the knee, to defend that no humors fall done to the sore place, which defensiue you shall euery day kepe wette, with Veneger and water. So that you shall not neede often to remoue it. In lyke maner you muste wette your fyrste defensiue that was layde vnder the knee and so keepe it wette for the space of syxe or seuen dayes before you remoue it. And for as much as we cannot come a to finger, or a toe to take it of with a salue, as we may do a legge or an arme, therefore I haue deuised pinsons to nyppe the bone a sunder after that you haue cut the flesshe round about to the bone, wyth your inficion knyfe, styngе your pouder wyth the whits

whyte of an egge for the restrayning of bloude, and other defensyues to defende humours as I haue before aleged. Now for the reste of the cure, fyrst we must procede with medicines to cause the asker to fall of, and I haue found none better then thys.

Rec. Terebinthinę ij.vnces.
Butyri recentis iiij.vnces.
Cerę j.vnce and a halfe.
Vnguenti populeon. viij.vnces.

Make hereof an vnguent according to arte.

Thys vnguent doth not onelye louse the asker, but it ceaseth the great payne, and kepeth the member from eupll accidentes which is requisyte in thys maner of cure. I haue not knowen twoo die, that hath had there legges or armes taken of with this pouder aforesayd, and vsyng the methode or waye that I haue here before declared. And for the reste of the cure you maye vse medicynes incarnatyue and dessicatyue as you do vse in other woundes, and as is required in the arte of Chirurgerye.

Nowe my brethren for as muche as that the taking of, of members, is one of the principall thinges that you haue desired of me, and to doe it wyth oute actual caterising wyrons which sore feared the people with the erroz of cauterization oz burning, as we call it, that many of them rather would die wyth the member on, then to abyd the tirreble fyre by meanes whereof manye people perysshed.

And other some, that put themselues to surgerie and had their legges oz armes taken of with whote yrons, many of them perished as you your selues knowyeth right wel. And specially you that be of the Hospitalles of London: wherefore I haue deuised and compilled (by the mercyfull helpe of god) thys maner and waye to cure those meserable afflicted people, wythout anye whote yrons oz great perill of death, as you your selues haue had experience nowe of late tyme, by the dismembrynge and taken of, of manye members, to the great releke and comforte of the poore people, and to the greate honour of the noble art of Chirurgerie. And I trust also, beynge thus mayntained, it shalbe highly to the glorye of God, to the commendacions of this noble Citie, where as these Chiritably dedes are done, vnto the poore afflicted members of Jesus Christ, in the Hospitalles of London where as daylye these workes of

mercy

mercye are done?

Now brethren I haue opened vnto you this noble Pouder whych I haue inuented to your honour and profite, but chefely for the commoditye of the poore: Requiring you, for as much as it hath bene your owne defyre, to haue the making of it, to take it in good part and gyue God the chefe maker thereof thankes therfore, and vfe it well. For I haue hard faye of a late tyme, that there is some, that fayth they haue the fame Pouder, and maketh a mocke and a gaude at it, goyng about to deface me the authour thereof for my good wyll and paynefull diligence. But I warne thee (what so euer thou art that so fayeth) to holde thy tounge wyth fhame, for neyther thou nor I had it, but nowe of a late time: Inuented by me and one Maifter Peirponte and fyrfte put in vfe and practife by the Surgians in Saint Thomas Hofpitall in fouthwarke. And fence that time put in vfe of many moe, both yonge and olde, not onely in takyng of members, but in reftayning of bloud both in vaynes and arteries, whiche coulde not be done wyth whote yrons, and manye other thynges hathe beene doone wyth thys pouder, whych is more to be merueled at, then to be beleued. And I for my part haue redde no fmal number of authours and that of the befte, and yet I neuer coulde finde thys pouder in anye of

them all. And yf anye other man be able to shewe it me in anye other authour, then I wyll gyue him place, or els holde thy tounge as I haue sayde before, for yf thou or anye of vs all had, had thys pouder, we had shewed our selues euil members in a common wealth that would suffer so many poore people to perishe in the Hospitals and in many other places for lacke of helpe. And thus brethren to sertifie your requeste, I haue finished thys Chapter, and ended my Booke called the Enchiridion, or a shorte & briefe maner of curynge, as we call it, of woundes, fractures, and dislocations. &c. But for as much as the medicines therin conteyned are put in the latin toung, peraduenture you wyl meruayll thereat. Seing that the reste is in the English tonge. But to you my brethren that exerciseth the noble art of Chirurgerye, I aunswere, I truste I haue done it both for your commodity & also for your profit. There are two specialle causes why they are put in the latin tonge, the fyrste cause is for that we cannot aptly giue all those simples Englyshe names, and therefore for as muche as herbes and other symples are called by dyuers names, accordynge to the vse of the countrye in oure Englyshe tounge, that they growe in: therefore yf I shoulde haue putte them in anye of these

Englyshes

Englyshyes afore sayde, an other parte of our countrye should not haue vnderstande it. And furthermore yf I shoulde haue put parte in Englyshe and parte in Latyne, it shoulde haue bene a defasynge of all the whole composition of medicynes. The seconde cause is, that I haue done it for your commoditye, for it shall cause you to vnderstande your receptes or medicynes in the Latyne tounge, not onlye by vse of compositions but the symples also, for there is no medicyne sette forth in this Booke, but yf ye goe to anye Potticarye he wyll make it you presentlye, and declare vnto you euerye Symple thereof, whyche shall cause thee in short tyme, yf thou be dilygent to vnderstande the whole scope in makynge of medicynes oute of anye Authour in the Latin tounge. And for you my brethren in London, thys shall be to you a more commoditye, for it maye moue you euerye lecture daye, to put a question for one medycyne, So that wythin shorte tyme, you shall gather the whole knowledge bothe of symples and compoundes, and also apte tearmes pertaynynge to the arte of Surgerye in the Latin tounge, in whyche the moste parte of the arte is wrytynge.

And hereafter yf god spare me lyfe, and thys my

my ſimple worke taken in good part, I ſhall not ceace, but ſet forthe vnto you one herball wyth the trew pyctures of herbes and trees, wyth manye other ſimples appertaynynge to the arte of Chirurgerie: with ſo manye names, as well in Englyſhe as in all other tounges that I can learne or vnderſtande, wyth their vertues, properties, and places where they growe in. &c. Whyche booke maye be ſuche a doctrine that you ſhall in ſhorte tyme vnderſtand all theſe ſimples conteyned in thys boke and many moe, not onely theyr qualities, but all theyr hydden properties whyche hath bene founde out by long experience. And al though thys lyttle Booke named the Enchiridion is verye brieke and ſhort, yet ſhall you fynd therin contayned, a true and ryght methode of curyng accordyng to both olde and newe writers wyth the whole ſcope and intentions curyue howe to apply your medicines, when to applye them, to what place they oughte to be applyed, and at what tyme. And although manye Surgians haue good medycines that may ſerue for the lyke purpoſes of theſe that I haue made mencion of before, yet notwythſtandynge for an example I haue ſette forthe theſe, that ye maye the better vnderſtande the true methode and waye of curynge by the nature and operation of them.

Thus

Thus I take my leaue of you deare brethren in Jesus Christ wishing vnto you the perfit knowledge of thys noble arte, whych is onelye the gyfte of the holy ghost, and you well to vse it, that almyghtye God maye worke wyth you to the comforte of the diseased or hurt person: let vs all pray, lord increase our knowledge in all vertuous artes and science, that we may vse them, to the glory of God, to whom be all honour and prayse world without end,

Thus endeth the fourthe and laste booke of the Enchiridion of Surgery compiled by Thomas Gale Master in Chirurgery.

FINIS.

An excellent

Treatise of vvounds made vvith Gonneshot, in which is confuted bothe the grose errour of Jerome Bzunswicke, John Vigo, Alfonse Ferrius, and others: in that they make the wounde venemous, whiche commeth thzough the common pouder and shotte: And also there is set out a perfect and trew methode of curyng these woundes. Newly compiled and published by Thomas Gale Maister in Chirurgerie.

PRINTED AT LONdon by Rouland Hall, for Thomas Gale.

1563.

Microcosmos (whome Man we call)
of two right noble partes is made:
The soule, whose lyfe is etetnall,
and body eke which hence must vade.

This last part, doth the fyrst contayne
so long as it in health indure:
Vntyll Sicknes, and all her trayne
doth proclame warre, and death procure:

Nowe Sicknes quite for to expell
Apollo haue the arte out set:
What arte, lo maister Gale doth tell,
Wherby Sicknes forse we maye let.

The Canon shotte (dreadfull and fell
lyke thonder boltes and fyry flame)
Howe to remoue the wayes he tell
in this treatise of worthy fame.

His name of right, Gale we maye call,
for Gala, mylke doth signifie:
And as mylke noryshe aboue all,
so doth this Gale right perfectly.

His sugred mylke of learnyng sweete,
doth the mynde foster and eke feede:
Showyng the way that is most meete
Microsmos to helpe at neede.

Nowe, what reward for him is dewe
that for mans cause doth such thyngs showe:
The wounded man shalbe iudge trewe,
and learned heades which it doth knowe.

John Feild Chirurgian.

1563
THOMAS GALVS CHIRVRGVS
ANGLVS ÆTATIS SVE 56

Thomas Gale Maister in Chirurgerie vnto the frendly Readers.

I Am not ignorannt (frendly reader) but many, yea the greater sorte wyll not a lytle merueyle that I shoulde go about to ouerthrow e that, whyche for a manifest trueth of no smale tyme hath bene receyued, and embraced: yea and not onely receyued, but also with the penes of diuers (otherwise well learned) confirmed and established. Me thinke I heare them saye, what kynde of felowe is this? What a Paradoxe hath he published? Is his knowledge and experience passing those famous writers, that haue left so noble workes behynde them? To all which I answere, that the matter must be tryed, iudged, and determined, not by antiquitie only, not by authoritie, but by reason and trueth. And yet I wyll attribute as muche to their autho-

 rities,

rities, as some other will, knowyng my selfe farre vnable to matche with any of them. And although they be suche as I haue profited by, yet the trueth is to be preferred before their authorities. Wherfore I beseche thee louing Reader, not to condemne me, before thou hast read my worke, and wayed the force of my argumentes wherewith I do mainteyne my assertion: and conferre them indifferently with my aduersaries, & let the touche stone be Ratio et Experientia, so I do not mistrust, but at the length this my opinion shal not seeme so straung and new, as trew and worthy to be receyued of other. Thus I bydde thee well to fare, and fauour my doyngs (which for thy sake I take in hand) as I wisshe thy knowledge in this my profession. At my house in London the .xxvi. daye of Julye.

1563.

The propoſition or Thema.

The vſuall Gonneponder is not venomous, nother the ſhotte of ſuch hoteneſſe as is able to warme the fleſhe, much leſſe to make an aſcar. Chap. i.

BEfore I do any thynge intreate of the cure of theſe woundes with Gonneſhotte: I wyll ſomwhat ſearche out the nature of the vſuall pouder and ſhotte, whome manye Surgyans (other wyſe learned) haue affirmed to be venomous, and ſo conſequently the wound made with that pouder and ſhotte, to haue the cure of venomed wounds. And here I woulde no man ſhould iudge that I deny there may be Gonnepouder venomous: but my talke ſhall not further extende then to the vſuall pouder, made of Sulphur, Saltpeter, & Cole. And that the thing folowing may be the more euident and playne, it is requiſite to conſider what that is whith is called venome, what the vſuall Gonne pouder is, and what the ſhotte dryuen violently forthe with the pouder can doe.

As touching the first, what venome or poyson shoulde be (which is called in Latine Venenū, and in Greeke Pharmacon, it is no other thyng then res non naturalis, a thyng not naturall, whiche being applyed to mans body any kynde of ways, either inwardly or outwardly, through his maligne qualitie, propertie, or bothe: doeth corrupt & destroy the same. Now then seing you know what venome is, let vs diligently cōsider whether the vsual Gonnepouder doth answere to this definition: if not, then certainly it is not venomous as diuers personnes haue hetherto dreamed. And for because it is compounded of simples (Sulphure, Saltpeter, and cole) it is requisite to set out what these three are, for so shall we the more assuredlye coniecture what the compounde is, & whether it bee venomous or not. And herein for the perfect knowledge of these simples, we wyll resorte onely to the authorities of Dioscorides & Galene, the principall wryters of this matter: least in rehearsinge all the authorities of those whiche wryte of the nature of simples, the worke myghte growe greater then I haue determined. Then if these wryters fauours our opinion, we wyll further wade & consider what daylye experience sayeth hereto: or whether that there resulte a venome, the simples beyng mixed; or elles that throughe alteration

alteration in tyme of the shotte, it tourneth to venome. I thynke these be the principall arguments they haue to maineteyne theyr fonde fantasie. And nowe touchinge the authoritie of the auncient wryters, I wyll begynne wyth Dioscorides, who in the fifte Booke.lxxxiij. Chapter, wryteth of Sulphure in this maner: "Sulphure viue is thought the best, whiche is called Apyron, shininge lyke a glowe worme, and nothing stonie. And in generall that Sulphure is alowed whiche hath not tasted of fyer, waxinge greene & fatte. There is great store of it growing in Melo & Lipara. The foresayde Sulphur, doeth heate, dissolue, & concocte spedely: It is good agaynst the cough, short brethe, and purulent excretion taken in an Egge, or vsing the fume of it. And the sauour of the same burnte bryngeth out the chylde in byrthe tyme, it doeth take awaye leprye, Mentagra, & Scabros vngues, mixed with Turpentyne: but tempered with Venigre it is of force agaynste the leprie, & taketh awaye vitiliginem, it healeth the stinge of the Scorpion, Resine beynge put to it. And with Vnegre it is good bothe agaynste the woundes of Draconis marini, & also of the Scorpion, with Saltpeter it taketh awaye the ichinge of the bodye, it helpeth the Jandiers sprinckled on his forehead, or elles taken in a rere Egge, it profiteth muche in di-"

» stillation, & stayeth sweatyng, wyth water and
» Saltpeter it is good for those whyche haue the
» Goute, the member beyng washed in the same.
» It helpeth the thicknes or rather difficultie of
» hearinge, the fume of it being receiued by some
» hollow Pype: it rayseth those whyche are called
» Lethargos, it stayeth the flure of bloode. Bro-
» sed eares beynge anoynted with it mixed wyth
» wyne and honnye are by it cured. These be the
» woordes of Dioscorides touchyng Sulphure.
» Hys mynde in effecte concernynge Saltpeter
» in the fyfte Booke, lxxxix. Chapter, are these
» Nitrum is the beste which is lyghte, of Rose or
» whyte colour, full of holes lyke to a Sponge,
» such is brought from Bunys. It bryngeth out
» humours fired in the deepe partes. The spume
» of Nitre is Judged best, which is most lyghte,
fryable, in colour almoste Purple, or spumouce
and bytinge, suche is broughte out of Philadel-
phia in Lydea. The seconde of Egypt. Also in
» Magnesia. Bothe Nitrum and eke his spume,
» hath the strength and vstion of Salte. Further-
» more Nitrum helpeth the Collicke if it bee ta-
» ken with cummyne in hydromell, or new wyne
» boyled, or any thyng which doeth losen wynde,
» as Rue or Dyll. It is also vsed in feuers, to an-
» noynt them before the fit suspected. It is mixed
» with emplasters, which do extract and dissolue,
» it doeth extenuate & put awaye the leprie, with

warme

warme water or wyne, it doth away the noyse of the eares, inflations & perulentnes, the fylthynes of the same it doeth purge and cleanse, tempered with Vinegre instilled & put in, it helpeth the byting of dogges put with the grese of an asse or swine, it doeth open felons mixed with Resyne, Terebinthins, and in the dropsie rubbing the skinne with a figge: it causeth clearenesse of sight tempered with honnye, and the venome of Mushrumes being dronke with Posca, or elles with water if they haue bene bitten with buprestis, also to those whiche haue dronk Bulles blod with Laserpitium, & it is to be geuen also to them which can not taste theyr meate. It is to be vsed in opisthotinis remissioribus et luxatis cum cerato, and in resolution of the tongue mixed with bread. Some doe burne it on the coles putting vnder a new tesse or pot vntil it ware red hote: thus much also out of Dioscorides touching Nitrum. Nowe let vs heare Galene, who speaketh of Sulphur in this maner. Al kinds of sulphur (sayth he) hath a power attractiue, & is of hote temperament, & of subtill substance, in so much as it resist the poyson of many venomous beasts: for I oftē times vsed it against the venome of turtur marinus, & draco. And when I had taught it certein fishermen, I after a short tyme returning, they mervaylously commended this medicine to me.

The

„ The vse of it is, that beynge dryed, strowed on
„ the wounde, & also tempered with spittle, for
„ when I had ercogitated these thynges, I found
„ them trewe by experience. In lyke sort it wor-
„ keth beyng mired with vine: for I taught the
„ fishers suche medicines as myghte redilye bee
„ prepared, and I sayde they myghte aptly vse it
„ bothe with olde oyle, & honnye, & turpentyne,
„ and suerelye experience shewed all these so to
„ bee. Also I haue not a fewe tymes (with thys
„ medicine of Sulphure mired with Turpen-
„ tyne) healed Scabbes, Mentagra, & Lepre,
„ for it cleanseth all suche diseases, & doeth not
„ repell them into the inward parts, where as di-
„ uers other medicines whiche cureth these sic-
„ kennesses haue a mired propertie, that is to
saye, they doe bothe digest & also dryue backe.

Lib. eodem

Hetherto Galene of Sulphure. Nowe let vs heare him of Nitrum, called with vs vsuallye Saltpeter, Nitrum (sayeth he) is in a meane in
„ strengthe betwixte Aphronitrum and Salte:
„ But beynge combuste, it goeth nearer the na-
„ ture of Aphronitrum, for by vstion it is made of
„ moore subtile and thynne partes. Therefore
„ it doeth drye and digest. And if it be taken in-
„ wardlye, it doeth cutte and extenuate gros
„ and slymye humours, muche moore then
„ Salte: Aphronitrum excepte great necessitie
„ inforseth, is not to bee taken inwardlye, be-

cause

cause it hurteth the stomacke, and doeth exte- "
nuate more then Litrum. Truly a certayne "
rustical man used Nitrum as a remedy against "
suffocation or choking, when anye had eaten "
Mushromes (they cal them in Latyne fungos) "
and it euer profited hym. And I my selfe haue "
accustomed to vse Nitrum bothe combuste and "
crude, & chiefely the spume of it, in the lyke effe- "
ctes. Thus much out of Galene also touchyng
the qualities of Nitrum. The lyke wordes
bothe of Sulphure and Nitrum hath Aetius
well neare. Nowe by theyr authorities you
maye easely iudge that neyther these two are
corrupters of mannes bodye, eyther inwardlye
taken, or elles outwardlye applyed. So that
they nothyng agree with the definition of ve-
nome. Yea, Dioscorides, Galene, and Aetius,
founde Sulphure and Nitrum so farre from
any venomous qualitie, that they vsed them
as approued and excellent medicines agaynste
venome. Therefore nother Iohn de Vigo,
Alphonce, nor Brunswicke, shall bee able by
any approued authour, olde or newe, to proue
that the simples (entrynge into the composi-
on of the vsuall pouder) are venomous, ex-
cepte they wyll affirme the Cole to bee ve-
nome, whiche were to ridiculous, seynge that
women with chylde, or those whyche labour
with that sickennesse whiche is called Pica,
and

and also children daily eate coles without danger. Furthermore daylys experience showeth the vse of Sulphure to be profitable. For it is a common practise to geue it in mylke to children vexed with wormes. And as for gonnepouder it selfe, in defect of other medicines, I haue put of it in these woundes, to drye & exticate, to the great comfort of the Pacient. And therfore it is not in mixture & cõpositiõ venomous, but medicinable, & hathe in hym the vertues abstersiue & desiccatiue. Neyther in those that are wounded with shotte of this pouder doe you see anye of those accidents to folowe, whiche are as inseperable in venomous shotte. Although Alphonsus Ferrius, woulde that putrefaction, corrosion, vlceration, & corruption, shoulde bee the proper accidentes in venomous woundes. As who shoulde saye, that perspiration letted of hote & moyste humours, there folowed not putrifaction, or that there appeared not in vlcers corrosion, called thereof vlcera phagedenica. Howe aptly therefore doeth he applie these as proper accidents in venomed woundes, when they are founde in moore then an hundred diseases, I doe make him selfe Iudge. Furthermore the cure it selfe of these woundes, agreeth with those that bee contused & brosed, without the addition of any medicine or alexipharmacon against venome: yea & Alfonsus himselfe did

little

litle conſider his aſſertiō, when in the curation of woundes made with Gonneſhot, he forgetteth to vſe remedies againſt venome, whiche ſhould be his chiefe and firſt ſcope, if the wound were as he affirmeth. So that it is more cleare then midday that the pouder doeth not receyue any venome through the fyre in ſhotynge, and that alſo is euident in thoſe that are burnte with pouder, for there appeareth no memcion of venome in them. And the burnyng is eaſely cured & that with light medicines. Another argument that Alfonſe bryngeth, is that the compounde medicine commeth to the fourth degrée in heate, and therefore is venomous, & ſo conſequently the ſhote, and therefore the wounde with it made. But let vs ſee I praye you the force of this argument: Sulphur is hote in the iiij. degrée, & ſaltpeter hote in the ende of the .ij. degrée. Nowe in the cōpoſition there is put one part of ſulphur, x. parts of ſaltpeter, & one parte of cole, the cole is colde & drie, & therefore addeth not heate to the compoſition, neither the x. parts of nitrum, being but in the ij. degrée hote. How then ſhuld this pouder be hote in .iiij. degrée? as for the like example, if you put to one part of boyling water. x. parts of water but half ſo hote, will it abate the heate of the one part or make it greater? I ſuppoſe none is ſo rude to cōfeſſe that it will increaſe the hotenes of the one part.

But

But in the waye of disputation I wyll graunte this absurditie. What than? Wyll he conclude all thynges that are in the fourth degree whote, to bee therefore venomous? Then surelye whote yron, fyre, burnynge coles, Pepper, Pelitorie, and a greate number of healthfull simples, shoulde bee numbred amonge venomes. True it is that venomes are deadlye in themselues. But it doeth not therefore folowe that what so is deadly that same is also venemous: this is no true conuersion. But leauynge thys as a thynge to manifest to make more wordes of: we wyll consider whether the shotte receyue suche heate that it can make an asker in the wounde as they affirme. Surelye I in the warres haue asked diuers wounded Souldiours what heate they perceyued in the tyme of the percinge of the shotte? Who all answered they felte no heate, but a certayne contusion, and I my selfe haue presentlye taken vp the Pellet when it hath falne at the marke, and felte no heate at all to bee made accompte of.

But that you shall perfectlye vnderstande and be Iudge your selfe in this case. Hange a bagge full of Gonnepouder on a place conuenient: than stand so far of as your peece wil shote leauell, and shute at the same, and you shall see the Gonnepouder to bee no moore set on fyer with the heate of the stone, then if you caste a

colde

colde stone at it. But saye they how happeneth it then that there is an asker in such woundes? For ther is neuer asker but cōmeth of Cauterization either actual or potentiall. To this I answere, that it is no asker, for then it were not possible there shoulde be flure of bloode in these wounds. For Galene sayeth, thynges adurent and burnyng doeth staye and staunche bloode. But you wyll replye, and saye there commeth no great flure of blood. To whiche I answere, the cause of that is, the great contusion whiche repelleth the bloode & hath so dryed the parte wounded, in thrustinge the bloode to the other partes that there is the lesse flure. But this is moste euident, that there euer followeth flure more or lesse: and therefore it is no asker but cōtused flesh. This might also be a reason manifest to the sences, that yf the Pellet bee a cauterise (whych of force it muste be, if it doe make an asker) how happeneth it, that it burneth not garmentes when it perseth them fyrste, and then the bodye? Naye you shall neyther see, neyther smell anye token of adustition or burnynge: where as if the shotte had no moore heate then a lytle sparke of fyre, it shoulde in lyke case easelye burne the garmentes.

But I thynke these argumentes sufficient. Therefore seing ỹ neyther by authoritie of any learned authour, nether by experience, neyther

yet in composition & mixture: And to conclude nother in the shoting the vsuall gonnepouder is founde to haue any venomous qualitie, or the shotte anye suche heate as is able to make an asker: Let them cease (I praye them) hencefoorth their founde opinion, & not obstinatly persist in their errour conceyued. Seynge that the senses doth otherwyse iudge: and not bee ashamed to imbrace a truth, and from hencefoorth confesse the vsuall pouder not venomous, nor the shotte of suche heate that can make an asker. Which if they doe, they shall not be tormented with suche care to take the fyre (as they commonly call it) out of the woande. But considering that thys wounde made with Gonneshotte, is to bee numbred not amonge greene woundes, not amonge venomous, but onelye among those which are called contused, brosed, or crushed woundes: They shall wyth greate gayne to the wounded man, and muche profite and fame to them selues, haue as prosperous successe in theyr cures, as some of them haue susteyned shame and reproche. But nowe to the generall cure of those woundes made wyth Gonneshotte.

The

The generall Methode and way to heale suche woundes as are made with gonneshot. Chapter. ii.

NOwe seynge (as I suppose) I haue sufficiently proued the pouder nor shotte venomous: it is conuenient to shewe the methodicall cure of these kyndes of woundes. And there are two intentions properlye hereto belongynge. The one is to delyuer the wounde of all such thynges as are not agreing to nature: The other is restoring of such thyngs as are losse and perished. I call thynges not agreyng with nature, not onely shotte, iron, splintes, or shyuers of wood, cloth, dust, oyle, or suche lyke: But also the cloddes of bloode, matter, brosed flesshe, and such lyke as haue no societie with nature. The waye howe and in what sorte these things are to be remoued, you shall fynde in the .v. Chap. of the first booke of my Enchiridion. The restoring of that whiche is lost is properly the office of nature, as to ingender flesshe, bloode, and suche lyke partes as are to be engendred. Notwithstanding the Surgian herein is natures Mynister, and shall labour to bryngе the parte to hys ryghte temperature: And it so reduced to conserue it in the same estate.

And although in the .vj. Chap. of my Enchiridion, I haue shewed a generall methode of curynge contused woundes: yet I wyll not refuse for the helpe of the inexpert, to set out in thys place a more ample and large maner and waye of worckynge. Therefore the cure of these kynde of woundes, is to remoue thynges fixed in the woundes with instrumentes thereto conuenient. As Crowe billes, Goose billes, Terribilles, Nippers, or Tonges. And then to doe your indeuour to cure this wounde, as you woulde doe contused and brosed woundes. And for because the brosed flesshe muste of force be taken awaye, and that with so muche expedition as you conuenientlye maye, wythoute sharpe and byting medicines: Therefore you shall to thys wounde contused take of precipitate Mercurye Dragme, j. or accordynge as you shall see cause, and mixe it wyth simple oyle, or oyle of Roses, or with Butter, or freshe Barowes grease, and laye it to the contused places. Bartholomeus Maggius an excellent Chirurgian, in these woundes after ỳ thyngs fixed in, be remoued, the flure of blood stayed, and the wounde cleansed, vseth to put into the wounde, of hys oyle one droppe, vnto which oyle he geueth great commendation, in all contused woundes, and the discription of it is as foloweth.

Rec.

Rec. Resinæ abiectinæ, v. vnce.
Olei rosacei, ij. vnce.
Sem. Hypericonis, v. dragmes.
Sem. Momordicæ, iij. dragmes.

The seedes shall bee brosed, and put in a duble vessell with the oyles, and let them boyle halfe an houre. Then strayne them, and keepe them to thy vse. This oyle doeth asswage doloure and payne, it doeth concocte and digest, and preserueth the sounde flesshe from corruption and putrifaction. There are also other medicines apte and conueniente for these woundes, but I wyll repete one which is singuler, and as I myghte terme it merueylous: For it seperateth the contused, swellynge, and putrified flesshe, and that without dolour or payne. And furthermore it so concocteth and digesteth, that you shall not perceyue anye kynde of cruditie in the wounde, and thys medicine is called vnguentum Egypsiacum.

Wherefore I wyshe that the Surgian doeth both dyppe hys tentes therein, & also laye it on his splegeantes. For in two dayes or three at the moste, yea in great contused woundes, it worketh his effect. And here by the waye I muste put the Surgian in memorie, that hys tentes bee not to bygge or longe, that they bee

not rough and hard, for the bigge tent doth extend the member, the longe doth pricke and induce dolour: the hard and rough doth as it were teare the flesshe. Let the tentes and splegeants therefore be made of olde and fine linnen cloth, that it bringeth not paine to the affected parte. After the contused flesshe be removed by the vse of your Egipsiacum: then applye to the place thinges that will mundifie, and moderatly dry, as Hony of Roses tempered with the flower of Barlie mealle, or Beane flower, unto which you maye adde, Aristolochia rotunda, Centaurium minus, Euphorbium, Aloes, Turpentine, Frankensence, Plantaine in pouder or iuyce, flowers of Pomgranates, Cipresse nuttes, and such lyke accordyng as the nature of the part, and time of the yeare doth require. And here I speake not either of purging, letting of bloud, scarifieng, and boryng, more then to admonyshe them, that these are necessarye and must of force be vsed in these wounds: Because I would the surgian should not raishly attempt herein anye thynge, for the greate peril that maye folowe. But rather vse the discreate counsell of the learned Phisition. Nother in those woundes whyche are greate and perilous wyth shotte, I would haue them straite wayes to dysmember the pacient (as many raishe

raisshe Empericke nowe in these dayes vse to doe) excepte Sphacelous or gangrena haue vtterly mortifyed the part. For I my selfe haue cured a certayne Souldyour who was shotte wyth a base, throughe the thyghe: and there was more then three fyngers bredthe taken awaye of the bone in length, wyth the shotte, and yet (God be thanked) throughe diligence and payne the patiente was restored to health: and hath the perfyte vse of the legge wythoute anye payne or greese more then that it is shorter then the other. And thus muche touching woundes of Gonneshotte in generall. The reste where as the perticuler cure varieth from the generall methode sette oute accordyng to the part wounded, you shall haue in their proper places folowyng.

Of a symple wounde in the head made with gonshot. Chap. iii.

In woundes made in the heade wyth gonneshotte you shall diligentlye consyder whether the wounde be symple or that it be compounde. For accordynge to their diuersitye, the intentions curatyue do much varye and chaunge.

And for because there maye be these two kindes of woundes, I wyll seuerallye of them entreate, begynnyng with a simple wounde first. Therefore if the wounde bee simple, the cure is easier, and wythout daunger: If that the Pacient haue not a bodye repletc wyth euyll iuse, or haue taked of that contagion, whiche Maister Doctour Cunyngham in my iudgement doeth of all other moste aptlye geue to name, Chamęleontiasis (vulgarlye it is called morbus Gallicus) as appeareth by hys booke written on the same. In whyche he showeth the errous of such as haue hetherto hereof writen: and setteth oute a most perfite methode, and newe way of curing, without fumes, guaicum, vnguentes receyuing into there composition Hydrargyron, or such lyke. But nowe to that from whence we are digressed. If the bodye of the wounded pacyente be affected as is aforesayde: although the wounde be but small and simple, yet most triflyng woundes in such bodies are not cured wythout much diligence. Wherefore in such bodyes you muste labour to purge the ill Juse, or in Chamęleontiasi, bothe to let bloode, purge, and sweete, and by dyet, and thynges conuenient rectifie the bodye and principall members of the same. So shall the cure of the wounde bee moore spedye,

and

and alſo proſperous. But nowe to the frewe cure of ſuche woundes as are called ſimple. Fyrſt let the heare be ſhauen round aboute, after apply this vnguent folowyng.

Rec. Præcipitati optimi, ij.dragmes.
Butyri ſalis experti,
Olei roſarum, } ana.dragme.j.ſe.
Croci, ij.graines.

Myxe theſe and make an vnguent whiche you ſhall laye on your ſplegeants beynge made of ſofte linnen clothe, and applye it to the wounde. Then you ſhall laye on the wounde alſo Bolus armenius tempered wyth oyle of Roſes and the whyte of an Egge, lyke an vnguent, to defende the parte from accidents. And this ſhall ſuffice for the fyrſte daye: You maye alſo at the begynnynge, vſe in ſteade of the ſeconde vnguent, thys comfortable cataplaſme folowynge.

Rec. Oleorum myrtillorum,
Roſarum, } ana. ij.vnce.

Baulastiarū, } ana.j.vnce.
Rosarum rub }
Boli armeni, }
Sanguinis draconis, } ana.j.dragme.
Myrrhæ, halfe a dragme.

Make of all this a cataplasme accordynge to arte. The second daye you shall vse some medicine that both doeth digest, and also moderately drye the wounde of whiche sorte this is one.

Rec. Terebinthinæ lotæ, j.vnce.
Mellis rosarum, ij.vnce.
Butyri salis experti, iij.dragmes.
Farinæ hordei,
Aristolochiæ rotundæ, } ana.j. dragme.
Radicis ireos,
Aloes, halfe a dragme.

Myre these and make all in an vnguent, and vse this vntyll suche tyme as there appeare signes of concoction in the wounde, at whyche tyme, you shall no more vse Butter in the vnguent, but in stede hereof myre with it this pouder folowynge.

Rec.

Rec. Sarcocollæ, j. dragme.
Corticū radicis papaueris, half a dragme.
Farinæ orobi, } ana. dragme. j. se.
Myrrhæ, }

Make this in pouder, and temper it with the other vnguent. And vse this vntyll the wounde be perfectly cured. And this is the cure of a simple wounde in the head.

Of woundes compounde, which chaunce in the head throughe shotte. Chap. iiii.

IN the cure of compounde woundes of the head, you must first of all (because you maye the surer iugde and discerne) vse insition and make Cranium bare: the forme of cutting most apt, is to make it in forme of two right lines crossing themselues in the middes: as in the picture appeareth. After which insition made, you must with some instrument sharpe and flatte, rayse the skynne and flesshe from Cranium. And yf you see anye shotte or peece of bone, which maye easely be taken out: you maye doe it with some conuenient instrument.

But

But if it wyll not without difficultie be taken awaye, then weate your stuphes in astringent wyne and venegre mixed wyth Bole armoniake, and sanguinis draconis: and laye it to the wounde. The nexte daye folowyng you shall vse this recept next insuing foure or fiue dayes, for feare of inflammation to folowe.

Rec. Boli armeni, ij.vnce.
Albumenu ouorum,2.
Olei rosacei omphacitis, iij.vnce.
Croci, iij.graines. misce.

Then you maye verye well vse thys digestiue folowynge so longe as shall bee thoughte conuenient, and that vntyll the thynge fired wyll easely be taken out.

Rec. Terebinthinæ lotæ in vino, iij.vnce.
Ouorum vitella, nu. 2.
Olei rosati, ij.vnce.
Aloes, ij.scruples.
Croci, iiij.graines.
misce.

In other thynges the cure of it doeth not differ from the cure of simple woundes.

But

But yf anye bayne vnder Cranium bee broken, and maketh effusion of bloode: yf dura mater, or pia mater be rent or torne, yf Cranium be broken, and thereby the brayne is depressed, then you must wyth all expedition set a trappan on Cranium, & geue the woũd vent, and take out the bloode, or matter, or what ells doth trouble and depresse the brayne. And for because you may knowe perfectly, wh ether the brayne is hurte or not (although youre sences outwardly can not discerne anye thynge) note these signes folowynge. Yf he haue vertigi-nem, or thinketh he seeth many lyghtes, yf he haue alienation of mynde, or swellynge and tumour of the eyes wyth redneſſe, or bleeding at the nostrelles or eares, also vomityng, re-solution of some one parte, and appoplerie. These bee infallible sygnes that the Brayne suffer, when as they consequently folowe af-ter the head be wounded. And when you are constrayned to vse a trappan, you shall make tentes of Cotton, Wolle, or Lynte, and put into hys eares, and commaunde a man to com-presse wyth hys handes the Pacientes eares, leſte the noyse make hym to muche affrayed, and faynte hearted. And looke that you haue alwaye in readineſſe softe and fyne clothes wherewith you maye mundifie Cranium, and toppe alway the bloode. Then looke you haue a

peece of sylke or fendall aunswerynge to the o-
pening of Cranium well wette in auster and
stipticke wyne, or in oyle of Roses, yf there
doth appeare any cloddes of blode to laye vpon
the pannicles, and put this sylke vpon the pan-
nicle and wyth an instrument putte it vnder
Cranium. Then put stuphes made of the finest
carded woll you can get, and wette them in oile
of Roses, and lay them on the place. After that,
fill the rest of the wound with clothes dypte in
the same wine and oyle, then wyth your hands
thrust it out, and laye vppon the same clothe
Bole armoniake myxed wyth the whyte of an
egge and applye it vppon the same wound, and
for to defende the member from dolour and in-
flammation, you shall laye rounde about the
wound this medicine made of Mel rosaceum,
Farina hordei and Iris. And whē the hole made
in Cranium dothe begynne to be fylled wyth
flesshe: then wyth a raspitorie take awaye the
sharpe edges of the bones, and bryng the lyps
of the wounde by lytle and litle into their pro-
per places. And yf through the negligence of
the Chirurgian, or the yll habite and disposi-
on of the pacientes body, or any distēperature,
there folowth corruption to any part affected of
the braine, then you must againe returne to the
vse of precipitate or Vnguētum Egyptiacum,

which

which is most excellent in this case. And euer after the doctrine of Hippocrates and Galene be mindfull that thou worke safly, spedely, & wyth so litle pains to the pacient as possible you may. Wherfore handle the parts tenderly, and wype al filthy matter away. Let ȳ rollings only serue for to kepe on the medicines, wherfore let them not be to straite and so to prouoke paine. Let the belly be fluxible and lose by clysters, suppositories, or purgation: If that it be not naturally soluble. And in thys case you maye gyue the wounded pacient euery day or els euery second daye, one pille of Agarike or Aloes. The diet muste be most smal and slender from the tyme of the receiuing the wounde vntyll the .vij. day. The meate shalbe the brothes made with a chicken, the drinke shalbe water boyled with suger and a litle cinamom, or els small ale and beare. From the .xi. or .xiij. day you maye giue him at meate a litle french wyne, or if the wyne be to strong mixe it w̄ fountaine water, or water of buglosse & borage. His brothes made as before w̄ chickens or a capon. And you may thicken the broth w̄ bread, with almones, or such like things that do norisshe. Notstanding let al be done with great discretion. And that the pacient obserue his due houres of diner and supper. Other things required for the order of .6. rerum non nat. Let the Chirurgian lerne of ȳ skilful Phisition.

Of

Of woundes in the Breste. Chap. v.

Although the woundes made with gonne-shotte are in all partes of the bodye one in effect and greefe: yet doth the cure differ according to the place wounded. Which thyng prouoketh me to describe here also the seuerall cure of woundes made in the Breste. Wherefore if the wounde in the Breste perseth not through, you shall cure it lyke other woundes. And the first two dayes applye vnguentum ex precipitato, or some other, which hath the lyke facultie. And after ỹ vse some medicines which will gently excitate & mundifie, as mel rosarum simplex, or elles mired with Turpentyne, Aristolochia, farina hordei, and suche lyke. And it shalbe right good from the second day, vnto the fourth or fifte daye to put to your abstersiue medicines, freshe and new Butter. So you may make your compound after this maner.

Rec. Mellis rosarum, j.vnce.
Terebinthinæ, } ana.ij.dragmes.
Butyri recentis, }
Farinæ hordei, } ana.j.dragme.
Aristol. rotundæ, }

First

Wyre these together and dyppe your tentes and spleageants in them. But vpon the wound you shall vse to lay thys medicine folowing.

Rec. Album. vnius oui.
Olei rosati j.vnce.
Boli armeni j.vnce and a half: misce.

But when as that matter dothe begynne to appeare in the wounde, then in the steade of thys laste remembred, you shall vse Emplastrū ex Chalcitide, vel Triapharmacon, made of Oxeleum and argenti spuma, spreade on a linnen clothe and laied on the wounde. And when the wounde is clensed from superfluous humiditye, you shall cure the wounde lyke those, whereas wanteth some generation of flesthe wherefore for thys intention dyppe your spleageantes in thys medycyne, to whose composition is required.

Rec. Succi Myriophylli, Mellis rosati, Terebinthinę } ana.j.vnce.
Farinę fabarum, Hordei } ana .ij. dragmes and a halfe.

Thuris
Aloes } ana.j. dragme.
Aristolochię rotundę

Myxe them together, & with a slyse syxre these on the fyxe, vntyll they be well incoxporated: and reserue it to thy vse. Now if the Pellet oxr shotte haue pearsed the inwarde partes it is deadlye and moxtall bothe foxr breaking some bones in the bxest, oxr rybbes (foxr the pellet can not pxesse betwixte the rybbes without bxeakinge of some of them, excepte the shotte be small lyke hayle shotte) and also foxr pearsynge the inwarde partes. Not withstanding where the Pellet oxr shotte moueth in the capacitie of the Bxeste, you shal with a Pxobe handsomly bent foxr the vse, search where it is, and it being founde, bxinge it vp to the oxifice of the wounde: and then with your Foxcepes, take it oute, as also the bloode. This beyng done you shall vse this vnguent folowing, two dayes onely.

Rec. Olei rosati omphacitis, iij. dragmes.
Terebinthinæ j. dragme.
Pulueris pręcipitati iiij. scruples.

Myxe al these well together, & dippe your tent in it. But here you must take heed that the tent be made of most fyne & soft linnen clothe, & that the length of the tent be no moxe then the thicknes of the ribbes: nether the bignes moxe then serueth the oxifice of the wounde. And

And vpon the wounde you shall applie in maner of an emplaster, Bole Armoniacke the whyte of an Egge and Oyle of Roses, vntyl there appeare concoction in the wounde: at which time you shal no more vse it but in ỹ place therof you shal vse emplastrũ Barbarum, or elser Chalcitide, whose cõpositions you shall fynd in my antidotarie. After the seconde daye, you shall vse this vnguent.

Rec.	Butyri recentis	ij. dragmes.
	Mellis rosati.	halfe an vnce.
	Glutinis albotin	iij. dragmes.
	Aloes	ana. j, dragme.
	Farinę hordei	
	Pul. ireos	
		misce.

When as you haue vsed this medycyne the space of eight daies, you shall leaue out the butter and in place thereof duble the quantitye of honny. And you may make an iniection to mundifie the brest with water in which is boyled liquirice, Figges, Raysens, and the lesse centaurye, or lupines. The rest of the cure of these woundes doe not differ from the methode set oute in the seconde Booke of my Enchiridion.

Of woundes wyth shotte made in the thynde ventricle or belye. Chap. vi.

The woundes made with gonshote, yf they be onely about the belly or flankes, wyth outpearcing throughe, and hurtynge the spine of the backe, are cured as other symple woundes made in the flesshe. Fyrst takyng out the shotte, then to remoue the brosed and contusid flesshe wyth medicines conuenient, as you se set out in the caryng of woundes of the heade, and brest. Then the .vij. day to vse some abstersiues which also doe somwhat exiccate and dry. But yf the shotte haue persed through the belly and haue wounded either the stomacke, lyuer, splene, kydneys, intestynes, bladder, or anye of the great vaynes or arteries: then there is no hope of life to be loked for. But if the shot haue persed the belly, and yet not wounded anye of the forenamed members, then the shotte being taken out there is some hope of recouery: but yet the pacient is not free from perill and daunger. Therefore you shall labour to get out the shot, placyng the pacient vpon the wound, and roll him from part, to part, prouokyng therby the shot to come to the orifice of the wounde. Then wyth a probe made apte and conuenient for the same vse, take out the shot. But if so be that you cannot wythout great payne & much searching fynde the shot, it is much better to let it remayn within, then wyth prouoking of mortall accidentes labour the takynge of it out. For

there

there is no daunger in letting the shot remaine in. And there is great perill in longe serchyng for that the ayer doth alter the inward partes: and in searchyng, some inwarde parte maye be hurte wyth the probe. I my selfe seruyng at muttrell vnder the myghtye and puissant Prynce Henrye the eyghte aboute the yeare of Christes incarnation. 1544. had the experience of eleuen sundrye souldiours shot into the bodye wythoute persyng of anye inwarde member. And I coulde not get oute the shotte wyth oute great difficultie and makyng incision: and therefore I letting the shote remaine within the body did perfitely cure the pacientes. And they lyued longe after wythoute any greefe or payne prouoked by the shotte. In lyke maner about the yeare of Christe. 1557. when as Philip kyng of Spaine beseiged sainct Quintynes, I then seruyng vnder him, had diuers souldiours in cure wounded in lyke sorte as is rehearsed: and the shotte still remayning in the body, they were (thanked be god) restored to helth. I also doe nowe call to remembraunce that there came a souldyour to London whan I fyrste practised the arte of Chirurgerye, who was shotte in the bellye at the seege of Pauia. And made perfectlye hole the pellit remaining within. Thys Souldour. xii. yeares after he was thus cured commynge to

the cittie, had a great apostume in the flanke. I then amonge other beynge called to the cure, we applyed suche medicines to the apostemе, as we accustomablye doe, to apostemes named Bubones, ingendred in that parte. And when the apostemе brake, and came to suppuration, we tooke out a Pellet of Leade, and afterdyd cure the Ulcer, and made the man whole. These I doe, brynge onely for crampes sake that other Chirurgians beynge in the warres shoulde not to muche busye them selues, or put the Patient to paynes and in daunger in takynge out the shotte. But nowe to that from whence we are digressed. The shotte beynge taken out (if it may easely be done) the contused and brosed flesshe remoued, and the abstersiue medicines applyed: you shall procede with incarnatiues, & consolidatiues, as is set out in the cure of wounds of the bellye, in the .ij. booke of my Enchiridion. And if blod or matter be in the belly, vse wyne warmed, & make iniections. But how much the sooner thou doest hasten the cure of the wounds in the belly, so muche thou makest the pacient surer of life, & thy self of worshyppe of the cure. Thou mayest vse well in these woundes when neede shall require, this incarnatiue folowynge,

Rec.

Rec. Thuris,
Aloes,
Farinæ hordei, } ana.j.dragme.
Terebinthinæ
Mellis, } ana. ij.dragmes.
Succi myriophylli,

Þou shal mire the flower with the iuise, then dissolue and melte the honnye & turpentyne at the fier . Then put all together and make an vnguent. With this you shal spreade your spleageantes & dyppe your tentes in . And when the flesshe do growe well , & that the wounde begyn to be fylled: you shall applye suche medicines as are astringent, & doth dryes: as honny mirt with pouder of Bay berries , Mastick , flowers of Þomgranettes, & Turpentine. And for an emplaster you maye vse emplastrum Chalcitidis, set out in the seconde booke of my Antidotarie. Þou maye not forget in these woundes of the bellye to open a vayne in the arme on the same syde: and commaunde the Pacient to vse quietnesse in bodye, & flee perturbations & affections of the mynde, so much as in him is possible.

Of the cure of woundes made with gonneshotte in the partes called Artus, conteyninge the armes and legges. Chap. vii.

The cure of such woundes as happeneth to the armes and legges, is after the methode set out before, For first you shall (the wound being made in the fleshye parte) wyth your probe searche oute the shotte and wyth your crowes bille take it oute.

But yf it haue well neere perced throughe the member, and that you maye feele it in the oppositye parte, then cutte the place, and take oute the shotte, regardynge alway that you cutte none of the greate vaynes whyche layeth towarde the skynne. But yf the shot cannot easelye be founde, you may not therfore cease the cure of the wounde, but procede in thys maner. If the holes of the shotte doe differ and are distaunte, you shall rolle fyne Lynte together, and put it into the eye of your Probe made lyke an Needle, and drawe it throughe the wounde. But yf the Muscules doe not sufferr thys: Then you shall instyll and powre into the wounde the vnguent made wyth Butter, Precipitate, and my Egyptiacum (whose compositiõ is in the Antidotarie) and let it pearse into the wounde. Then you shall make Tentes and dyppe them in the same, and put into the orificies of the wounde, and vpon the partes rounde aboute, you shall applye the medicine made of oyle of Roses, Bole armoniake, and the whyte of an Egge

myxed

mixed together. This medicine you shall so longe vse vntyll you bee paste suspicion of inflamation, and other accidentes. And when there appeare sygnes of concoction, you shall put but one parte of Butter, and two partes of Honnye. After whyche thynges done, the vse of thys medicyne is conuenient.

Rec.	Succi apij Myriophylli Terebinthinę	ana.j.vnce.
	Mellis	ij.vnces.
	Farinę fabarum Hordei	ana.ij.dragmes.
	Aristolochię rot.	j.dragme & a halfe.
	Aloes.	j.dragme.

First mixe the pouders wyth the iuyces and Honny on a softe fyre: then put in Turpentine. And in sommer or whereas the paciente is of colorike nature, in the place of apium you may put the iuyce of plantine: or yf you wyll more spedely exiccate and drye, put to it Lithargirũ made in moste fyne pouder, or els lyme wasshed many tymes, and dryed and made in fyne pouder. And when as the wound is well mundifyed: you maie vse some incarnatyue as this for example.

Rec.	Terebinthinę,	ij. vnces.
	Mellis	j. vnce.
	Aloes	} ana. j. dragme.
	Thuris	
	Farinę hordei	
	Aristolochiæ	halfe a dragme

And now you must haue regard to your tents that you daylie make thē shorter and lesser. And so cure the woūd. But if it happeneth that thorow the violence of the shot, not only the fleshy parts be wounded, but also the bones fractured and broken: then you shall vse a duble kynde of cure. For the cōtusion must be cured as I haue here before made mention: and the bone fractured must be vnited & vsed as is set out at large in the fourth boke of my Enchiridion. Sauing ỹ you shal not vse ligatures & splents in this kind of woundes. But first you shall labour to take out the shot. Next to remoue the contusid & brosed flesh, then to procure the generation of new flesh. After which, shall come the vnition of the bone. And because you may kepe the part without motion when as the bones are ioyned: you shal vse the instrument which is set out for fractured legges in the ende of this boke. And then couer the member with soft clothes that it may be defended from the iniurye of the ayer.

Of

Of the cure of those that are burnt with gonnepouder. Chap. viii.

The cure of those that are burnt with gonpouder doe require none other cure then if they were burnt with fyre, or other flames Wherefore it were superfluous to make mention of the cure of it in this place, yf it were not that those which vse shottyng in gonnes as subiect to the flambe of pouder: and therfore I haue placed it wyth this booke. Wherfore yf the skinne be not yet vlcerate, you shall apply to the parte, oyle of bytter almondes, oyle of Olives with salte, or that which is in comon vse, to take two partes of the iuice of Onions, and one part of varnishe. But yf there be vlcerations then you must make this vnguent folowing.

Rec, Olei oliuarum ij. pounde.
Secundę corticis Sambuci iiij. vnces.

Boyle these on the fire, then strayne them strongly, after adde to them.

Cerussę halfe an vnce.
Plumbi vsti } ana. iij. dragmes.
Lithargyri }

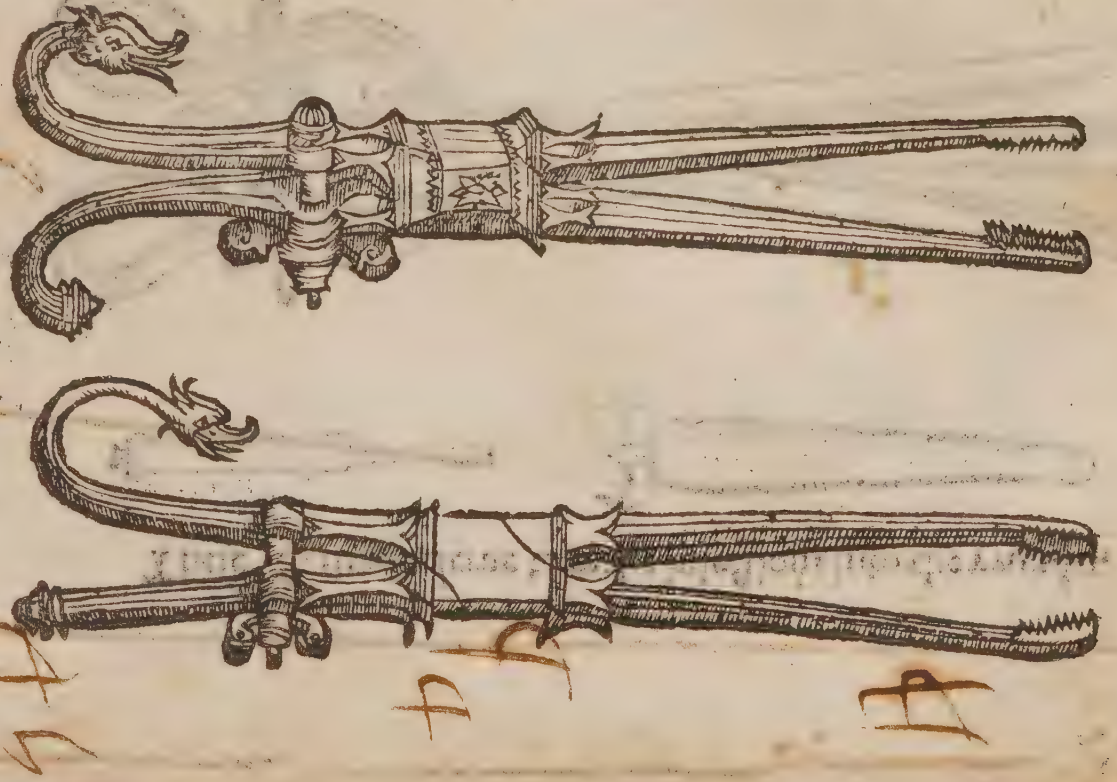
Pyre

Pyre these with a leaden pestell in a morter, and make thereof a Lynimente accordynge to art. But you must take hede that you open not the bladers, for the space of .vj. or .viij. dayes: for when as they are opened at the beginning they bring dolour & paine. The inflammation ceased and the accidents which may happē being put away: the reste of the cure is as the cure of vlcers: whyche varyeth accordynge as the vlcer is symple, or compounde.

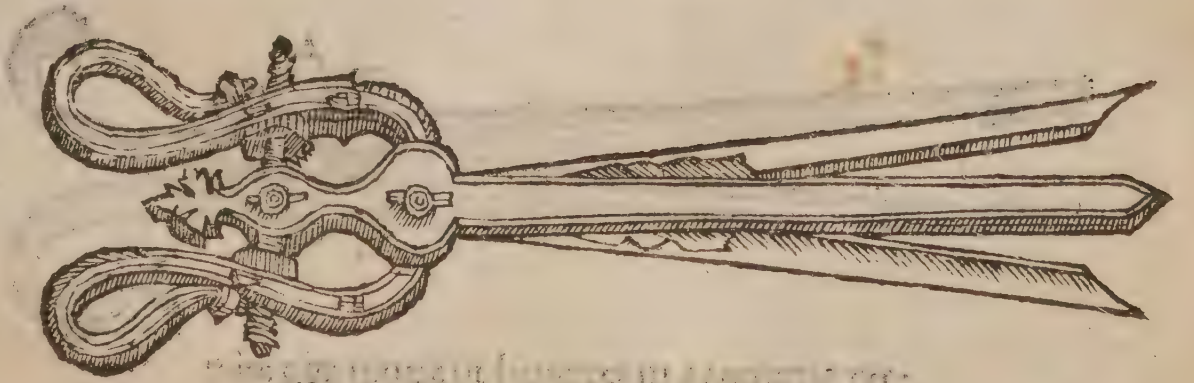
Thus endeth the treatise of Gonnelhotte, compiled and publshed, by Thomas Gale maister in Chirurgerie.

FINIS.

These instruments be called Forcepes and are vsed for to take out shotte or pellettes in vvoundes. &c.



These Syringies ſerue to make iniections into the vvondes.



These are the inſition ſheares to enlarge a vvounde.

This inſtrument is called Goſsopium and ſerueth to lay the fractured legge in, being broken vvith Gonneſhote. &c.

An Antidotarie

conteyning hydde and secrete Medicines simple and compounde: as also all suche as are required in Chirurgerie: faythfullye gathered and published by Thomas Gale Maister in Chirurgerie.

PRINTED AT LONdon by Rouland Hall, for Thomas Gale.

1563.

Antidotarie. WHy vvith ſo coye, and ſtraung a looke,
doſt thou me thus beholde?
Am I vnknovven vnto thy ſect,
or my vſe manifolde?

Chirurgian. VVhere as acquainted men bee not,
vvhat ſhoulde they faune and ſmyle?
I knovve you not my lookes it ſhevve,
I vvyll you not begyle.

Antido. My maiſter hath ſent me abrode,
to his great coſt and paine:
VVilling me vvith Surgians to dvvell,
to their vvorſhippe & gaine.
If that but ons my name you heare,
you vvyll me knovve certaine,
Antidotarie cald I am,
vvhich great treaſures containe.

Chirurg. Antidotarie ſhould I knovve,
but thy ſpeach, & araye,
(VVhich yet I haue not hard or ſeene)
doth conterary ſaye.

Antidot. In deede I vvas naked & bare,
vvith errours eke infect,
And barbarous names of medicines,
to vvhich I vvas ſubiect.

But

But lo, I am nowe garniſhed,
with medicines of price
Which olde Hippocrates did vſe,
and Galene did deuiſe,
Auicen, Raſis, Meſue,
Guido, Brunſwike, Vigo:
And all my maiſters trauailes eke,
he hath added me to.
And though my ſpeach for want of vſe,
ſemth ſomewhat ſtraunge to thee,
Yet if learning thou wylt imbrace,
and acquaint thee with me,
Familier thou ſhalt me fynde,
eaſye to entertaine.
Then geue me leaue thee to imbrace, Chirur.
do thou with me remaine,
And for thy ſake I wyll not ſpare,
labour, and tyme, to ſpende.
Yf thou ſo do, great gayne will ſpring, Antidot.
and men wil thee commende.

W. Cunyngham.

1563
THOMAS GALVS CHIRVRGVS
ANGLVS ÆTATIS SVE 56

Thomas Gale Chirurgian, vnto the frendlye Readers, Salutations.

WHen as I hadde finished my Institutions, Enchiridion, and Treatise of woundes made wyth Gonne shotte (louynge Reader) I dyd ryghte well perceyue that the preceptes of the arte in them conteyned, shoulde not so farre extend and serue so well thy vse, excepte I did set oute suche medicinal instruments, as bothe are mencioned in the same bookes, and of necessitie are required in the arte of Chirurgerie: as vnguentes, oyles, Baulmes, lotions, wounde drynkes, Emplasters, Cerotes, Catasmasines, Trochisce, Pouders, & such like. For although I haue set out diuers approued medicines in other my bookes, yet they be but as an handefull in comparission to this Antidotarie, and put forthe there onely for

example sake. Wherefore I haue drawen oute of the moste approued Authours olde and newe, suche medicines as bee both easely prepared, and of moste effecte and vertue: addynge hereto what I haue founde profitable and necessarie by longe experience and practise. And although perchaunce at the fyrst it may seeme somwhat obscure and harde (because I put the receptes and compositions in the Latyne tongue) yet yf you doe accustomablye vse to reade them, and conferre either wyth the Apothecarie where as you doe not perfectly vnderstande the same, or elles vse the helpe of a Dictionarie, they wyll bee vnto you bothe familier and playne. And thynke not that I haue done thys (louynge Reader) because I woulde make it moore hearde and difficultie: But I dyd it chiefelye for that the Latyne names are vniuersallye vsed, & that there are an infinite number of simples which want Englyshe names, & those (for the moore part) that may

may be Englyshed, are not vniuersally knowen through England by that same name: because of the diuersitie that is vsed in callinge of simples, according to the countrey. And yet I doe not omit to set out in the English tongue as well the methode and way of composition of suche medicines, as I haue placed in this Antidotarie: as also faithfully declared their vertues and vse, for what causes they are inuented, and for what infirmities they serue. And although it seeme harde, obscure, and difficulte at the first face, yet folow thou styll the counsell of the wyse Poet who sayeth:

Assiduo illisu durum cauat vndula saxum.

Whiche Uerses maye bee englished with vs in this maner.

The watrie droppes so meyst and softe,
Doth perse hard stones with dropping oft.

So in like case (dere reader) the hard names of medicines by oft reding will be perfed, I meane they wyll be as facile & easy vnto you as possible may be.

Nowe there resteth no more but that thou wylte with the same good wyll and mynde receyue these my trauailes and expences, that I frely do offer them vnto thee. So doynge I wyll not here staye God wyllyng, but participate other of my labours with thee. Fare moste heartely well in Christ oure Sauiour. At my house in London, the first day of August.

1563.

The firſte Booke of

the Antidotarie conteynynge briefely the ſimples and compoundes anſvvering to all the intentions curatiue required in the arte of chirurgerie, by Thomas Gale, Maiſter in Chirurgerie.

Of medicines repercuſſiue bothe ſimple, and compounde. Chap. i.

MEdicines which doe repell and driue backe, bee of qualitie colde and ſuche as haue an adſtringent facultie, although they be whote. The vtilitie ſpringinge by the right vſe of theſe is great. For we ſtaye by them the flure of humours in their beginning. Hereof doeth it folowe, that we let the generation of inflammations, apoſtemes, vlcers, feuers, dolour, and payne. Of ſimple medicines repercuſſiue theſe are ſome in moſte vſe. Waters eyther fountayne or diſtilled, Lectiſe, Burſa paſtoris, Myntes, Purſelane, Plantyne, Colewortes, Wormewode, Centaurie, Melilote, Pentaphyllon, Knotgraſſe, Houſeléeke bothe great and leſſe: the leaues & toppes of Brambie tree, the Pyrtle tree, Balauſtium, Galla

omphacitis, omphacium, Vineger, wylde Apples, and Peares, Medlers, Seruise tree and fruite, Alume, atramentum sutoriũ, cerusa, Litharge, acatia, bolus armena, terra sigillate, Hypocisthis, aloes, amomum, agaricke, Calcanthum, Crocus, Coral, Hęmatites, Ladanum, Myrrha, Chrysocolla, Cadmia, Cinabaris, Sanguis draconis, Spodium, Tragacantha, the Oke, Cypresse leaues, and Pyntes, Mandrage apples, Iuse, Henbaine, Popie, whytes of Egges, and suche lyke. Among compoundes these are numbred whiche doe dryue backe and staye the flure of humours. Oyle of Roses, Cataplasmes made with the iuse of these herbes, and with floure. Also cerotes, as cerotum è Psyllio, ceratum rosaceum, ceratum myrtinum, diacalcitis, oleum rosatum vulgare, oleum rosatum Mesuę, oleum rosatum omphacium, oleum Cydoniorum Mesuę, vnguentum santallium Mesuę, hydreleon Galeni, Cataplasma Guil. Buttes ad phlegmones, vnguentum contra phlegmones & pru[illegible], vnguentum Pomphologos.

Of

Of medicines attractiue simple and compound. Chap. ii.

Medicines which do drawe & attracte be of whote temperature and subtyle partes, they doe drawe out of the inward parts, as when as anye venemous matter is in the body. Also when splents, bones, scales, thornes, arrowe heades, are fired in any partes, it sucketh oute superfluous moysture in dropsyes, and suche lyke sycknesses. Medicines simple attractiue be, Propolis, Sagapenum, ammoniacum, Opopanax, Galbanum, Euphorbium, Calx viua, aristolochia rotunda, lepidium, Musterd seede, Tithymallus, Pyrethrum, Cantharides. Also stercus columbium, Gallinaceum, anserinum, arietinum, and all suche lyke fymes. Olde oyle, also Turpentyne, Larigna, picea abiectina: and suche like as haue a greate vertue attractiue: Of compounde medicines they vse oyle of Musterd seede, Emplastrum apostolicon Nicholai, Oxycroceum, Emplastrum ex allijs Aetij, and diuers other, whiche you shall fynde in the seconde Booke of the Antidotarie.

Of

Of medicines abstersiue, simple and compounde. Chapter. iii.

Such medicines as do mundifie, and cleanse woũds or filthy vlcers: are called absterssiues.

Of which simple cõmonly vsed be Smalag, Roses, Plantayne, Scabiouse, Nettles, Selondyne, Radix dracontij, Lupines, aristolochia longa, & rotunda, Alume, Barley and Beane flower, Flos iris, anagallis, Almones, Sotherne wode, Sperage, Asplemos, Wormewood, Betes, Camepytis, Hartes horne, cortex Capparis, Eleborus albus & niger, Horehound, Parietarie, Valerian, whaye, Honny, Staphisagre, Nitrũ, the compoũds are Melicratũ, Oxycratũ, Oxymel, Oemel, Prẹcipitatis puluis, vnguentum Egyptiacum nostrum, veride andromachi, vnguentum apostolorum, vnguentum mundificatiuum Magistrale, and diuers other lyke.

Of

Of resoluing medicines: Symple and compounde. Chap. iiii.

When as through great fluxis there are humours impacte in anye part, then we vse resoluetiue medicines; the Grekes call them Diaphoretica and they be of whoote and moist temperature. The simples Diaphoretik are these. Whote water, whote wyne, Oyles that be whoote in qualitie, anthemis, Linesede Fenegreke, Myntes, Neppe, Calaminth, Penriall, Netles, Balme, Mugworte, Camomil Malowes, Pellitote, Dill, Stichados, Maioram Fumiterry, Wormewode, Enula Campana, Walworte, Helder, Valerian, Horehounde, Smaleage, Colewortes, Beane, and Barlye meale, Turpentine, Ladanum, Sagapenum, Galbanum, Opopanax, Bdellium, ammomacū Coliphonium, Myrrhe, Frankensence, and the grese of Geese Capons, Hēnes, Cranes duks, and such lyke. Amonge compoundes specified in the seconde Booke these are numbred.

Barbarum emplastrum, Emplastrum ex chalcitide, Triapharmacon, Diachilon album, oyles of elder, Lilies, Dill, Camomille, Oleum Rosatum compositum Mesuę, Oleum Nardinum compositum Mesuę, Emplastrū Henrici octaui, Emplast. Gul. Firmigonis militis.

Of

Of medicines mollificatiue, simple and compound. Chap. v.

Medicines mollificatiue whiche properlye in Greke are named Malactica, are temperately whote without anye manifest qualitie either of moysture or drynesse. We vse these medicines when as we wyll mollifie and make softe bodyes whiche bee scirrhous and harde. Of the simples which doe mollifie these are: all fatnesse, Butter, Ammoniacum, Bdellium, Atripler, the rootes of Althea, Mare, Colophonie, Fengreke, Cinamome, Saffran, Cypresse, Galbanum, Lyneseede, Laudanum, Lorell, Lilies, Pallowes, Opopanar, Desiptus, Piche, Psyllium, al Resines, the marrowe of a Harte, a Calfe and Dre, Storax and Prepolis, and Mescelto.

The chiefest compoundes herein vsed, bee Diachylon magnum Mesue, Dialthea cum gummis Nicholai, Emplastrum de Mellioto mesuę, Diamelilotou Andromachi ex Galeno, Emplastrum ex allijs Aetij, Diachalceteos Galeni, Dia chylon mesuę primę descriptionis, Ceratum è styrace, Ceratum gratia Dei, and suche lyke set out in the seconde Booke.

Of

Of medicines which do suppurate, simple and compounde. Cap. vi.

When as all hope is passe by other medicines, then we take those in vse whyche doe suppurate. And note that generallye the great inflamations for the mooze parte doe induce payne, and palsatiue dolour, and come at length to suppuration. The simples whiche do suppurate for the mooze parte, are Althea, Branckursine, Arungia, Butter, Calues talow, Saffran, Ware, Ammomũ, Fengreke, Wheate, Barley, Cocle flower, the rootes of Bzionie, whyte Lilie heades, Ladanum, Lyne seede, Mastiche, Oesypus, Piche, Frankensence, Rosyne, Styzar, Figges, Stichados, Smyznium. Of compounds which be of fozse in this case: are Picatum ceratum, tetrapharmacon, Basilicon, viride Andromachi, Fastillus Musię, Emplastrũ ex fremẽto Democrati, and diuers other which nẽede no rehearsall.

Of

Of medicines caustick. Chap. vii.

Caustick medicynes which doe remoue, and take awaye fylthines in vlcers, and superfluous flesshe, are precipitate, sublimate, alome, es Viride, Calchanthum, Sandaracha, arsenicum, Puluis noster secretus, Vnguentū egyptiacum, Vnguentum apostolicon Vigonis, Pastillus Andronius, Pastillus Polyidę, pastillus de Minio Ioannis de vigo, Ceratū Viride Iamerici, aqua corrodens, aqua mercurialis. and dyuers other which were superfluous to rehearse: seing they are readelye founde in the seconde Booke: or els in the table belonginge to the whole workes. And that I haue here in thys place remembred the cheefe and principall Caustick medicynes, whyche are moste in vse in these our dayes.

Of

Of medicynes which do aswage dolour and payne: bothe symple, and compounde. Chap. viii.

MEdicines whych do ceasse dolour and pain (called in greeke Anodyna) be dill, worm poode, Gladine, Agarike, Cardamone, Chamomille, Centaurie, Chamępitis, Eringium Daucus, Iris, Persely, Rosemarie, Iuniper, Milium, Opopanax, Althęa, Revv, Serpillum, Lyneseede, Hyosciamus, Fygges, Castorium, Cardamome, Agallochum, Atriplex, Serpillum, Fengreke, Peucidanū, the white of egges, & such like. Among compoūdes these are in vse, butter, oile of roses, Violettes, Lettuse, Purslane, Oleum, Mastichinum Mesuę, Oleum Populium Nicholai, Oleum Hyperici Magistrale, Oleum Mandragorę Nicholai, Oleum Lumbricorum, Unguentum infrigidans Galeni, Ceratum Rhodoxycroceum Nicholai, Emplastrum de Speciebus, Cataplasma D. Gul. Buttes ad dolorē sedandum. And such lyke.

Of medicines incarnatiue: Simple and compound. Chap. ix.

Medicines incarnatiue, which doe also ingender flesshe: are Aristolochia rotunda, Frankensence, Ladanum, Aloes, Cadmia lota, Pompholix, Amylon, Manna, Mirrhe: Storax, Spodium, Turpentine, Colophonia: Chrysocolla, Piche, Christallus, Oesypus. Of compoundes they vse Viride Galeni, theriaca, Aureum Mesue, Fuscum Nicholai, Tetrapharmacon, Dia Irios, Puluis Rasis, Vnguentum Basilicon Mesue, Ceratum Viride Iamarici, Vnguentum incarnatiuum Brunsuicensis. And dyuers other set oute both in the Enchiridion in their proper places, and also in this seconde Booke.

Of medicines which doe cicatrize, symple and compound. Chap. x.

MEdeines which are to be vsed to cicatrize an vlcer, when as it is filled with fleesh are these, Aloes, bolus armena, Alome, Aristolochia, amilum, balaustia, bdellium, anagallis, Centory, Camepitis, Chamedris, cadmia Eupatorium, es vstum, acatia, gentian, Gipsum, Iris illirica, Licium, Lupines, Mell coctum, Myrtius, Myrrhe, Lithargyrum, Plantain, Pentaphillon, Paper combust, Sanguis Draconis, Sarcocolla, stymmi, Sandaracha, terra Lemnia, Symphiton maius, the leaues of elder, Frankensens, Tormentyll, Maruayne, Ceruse, Cupresse galles, tutia, and such like. The compoũdes are Dia cadmia, Dia ladani, Vnguentum album Rasis, album è Ceruſa, Vnguentum Pompholigos, Puluis Epuloticus, Vnguentum Nicholai, beyng the seuenth vnguent set out in the seconde booke. Diapipereos Galeni, Dia Dictamu Eiusdem, Emplastrum Calisiense, Emplastrũ Gul. Firmigonis: Militis, Ceratum Viride Iamerici, Vnguentum desiccatiuum rubrum: and dyuers other, &c.

Of medicines Conglutinatiue, symple and compounde.

MEdicines conglutinatiue, symple be: elder Walwoꝛte, Syderites, Symphitum, plantaine, Anagallis, androsemon, copvvebbes, Lana Succida, new chese Isatis, Myrrhe, Sarcocolle Aloes, Barlie combust, Pich, Rosen, & gumme arabicke. Of compoundes they vse, artificiall Balmes, amonge whiche that whych is set out in the seconde Booke after oure inuention is vyght excellent and of great vertue. Barbarum emplastrũ Galeni, & vnguentum é vermibus, Oxelçum Galeni, Oeneleum, Ceratum viride Macherionis ex Galeno.

And dyuers other of whiche I nede not to make a vayne and superfluous rehersal.

FINIS.

The seconde booke of the Antidotarie, Contayning the medicynes compounde: and their waye of composition, with theyr vertues and properties, by Thomas Gale Mayster in Chirurgerye.

IN the former booke (louynge Reader) of thys Antidotarye I haue set oute breefelye and eke compendiouslie, such medicines simple and compounde as are required in the curatiue intentions of Chirurgerye: nowe I thynke good in this seconde booke, to declare the compositions all such compoundes as are there remembred, and be of most price in the arte. Unto whiche I haue also added no smal number of vnguents oyles, Balmes, Emplasters, Cerotes, wounde drynke, &c, of myne owne inuention. And here note, that there is difference betwyxt the grecians, and the later writers, touchinge the names of these compound medicynes. For the Grecians dyd call vnguentes onely aromatick oyles, wherewyth they dyd annoynt the body. The Cerotes they called suche medicynes as receyued into their composition oyle and ware. Emplasters be medicynes whyche take into their composition dyuers kyndes of symples,

but chefelye metallyen bodyes and these are so longe to be boyled together, vntill they wyll no longer defyle, and cliue to the handes. Cataplasmes, be medicines standing on herbes, flowres oiles, wheat, barly, ote, beane and other flower. Which are not so long to be boyled on the fyre, as emplasters are. Trochisce, be compositions made rounde and were deuised to kepe longe tyme such symples in their force which do enter in other compositions. Pouders be medicynes beaten and made subtile and fyne lyke mootes of the sonne, as they call them. Waters are prepared diuers wayes by the arte of Alchimie. Decortions, lotions, and iniections, be liquors and other thynges boyled together and then strayned. What quantitie of euerye symple should be admitted to euerye forme of composition can not in generall rules be set onte, but doth varye accordynge to the curatiue intentions. Perticuler formes of compoundes suche as be of moste price, and vsed: shall folowe in thys seconde booke: as also there way to make them, and to what vse they serue: begynnynge fyrst wyth vnguentes.

The

The discription of an vnguent called Infrigidans Galeni.

Rec. Olei rosati omphacini i.pounde.
Ceræ albæ iii.vnces.

You shall melte the Ware in the Oyle, then washe it often with colde water, vntill it commeth to white colour. Last of all washe it w̄ water of roses & put to it a litle p̄rotiō of venegre. It is good to refrigerate hote burning feuers, and the heate of the liuer. It aswageth the pain in the head. It must be anoynted vpon the rigge bone or spine of the back, vpon the temples, and vpon the region of the liuer.

Vnguentum ad ambusta

Rec. Olei rosati viii.vnces.
Olei ex ouis ii.vnces.
Nitri albi puluer. ii.vnces.
Ceræ albæ i.vnce and a halfe.
Corticis mediani Sambuci M,i,

Make hereof an vnguent wyth a soft fyre according to arte.

It is very precious in burnings and scaldings and lyke affectes.

Vnguentum de Artanita Maius Mesuę

Rec.	Olei irini	ij.pounde.
	Succi Ciclaminis	iij.pounde.
	Cucumeris agrestis	j.pounde.
	Butyri	j.pounde.
	Pulpæ colocinthidis.	iiij.vnces.
	Polipodij	vj.vnces.
	Euphorbij	halfe a vnce.

Brouse those that are to be brouſed & let them be infuſed in a veſſell of glaſſe wyth the iuyces and oiles eight daies: then make them whote in vaſe duplici and ſtrain them, then adde.

Sagapeni	vij.dragmes and a halfe,
Myrrhe	iij.dragmes.

These muſt be diſſolued in veneger and boile all in the decoction afore sayde vntyll the iuyces be conſumed, then adde to it.

Ceræ	v.vnces.
Fellis vaccini	vij.dragmes & a halfe.

Make

Make al so whote that the ware maye melte: after put into it by lyttle and lyttle the pouder folowynge.

Scammonij Aloes Colocinthidis Mezerei Turbith	ana . vij . Dragmes and a halfe,
Salis gemmæ	iiij.dragmes & a halfe.
Euphorbij Piperis longi Zingeberis, Chamæmeli	ana.iij.dragmes.

Miſce et fiat Vnguentum.

It prouoketh vomit being annoynted on the ſtomacke, but on the nauyll it maketh the belye loſe. So that it is good againſte dropſies, for that it doeth much erpell ſeroſe humors, it doth alſo kyll wormes. And is vſed in ſuche bodies as are not able to take anye purgien medicines inwardly.

Vnguentum Roſarum Meſuæ.

Rec. Axungiæ porcinæ.j.pound.

Washe it. iv. or. x. times in hote water and as often in colde. Then you shal adde to it.

Rosarum rubrarum recentium. j. pounde.

Macerate them and let them stand together seuen dayes, after boile them with a softe fyre. Then strayne them. After put so many newe Roses and doe as you dyd wyth the first. Then take so many more newe and so the fourth time doynge alwayes as wyth the fyrste Roses. Then adde.

Succi rosarum rubrarum vi. vnces.
Olei amygdalarum dulcium. v. vnces.

Boyle all on a softe fyre vnto the consumption of the Iuyce of Roses, then strayne them and reserue it to that vse.

Alij addunt opij. i, dragme.

It ceaseth inflammations, Herpes, and erysipelas and is good against the head ache cõming of heate. It doeth aswage the whote distemperaunce of the stomacke and lyuer.

Vnguentum album auicennæ,
Vnguentum de ceruſa dictum,

Rec.

Rec. Lithargyri j.dragme.
Ceruſę v,dragmes.
Cerę albæ vij.dragmes.
Olei Roſati ij.vnces.
Albuminis ouorum numero.j.

The ware being molten in the oſle with a ſoft fire put in your litarge and Ceruſe well beaten and ſerſed. Myre theſe, and laſt of all you ſhall put in the whyte of the egge.

This vnguent is good againſte adustion, ſcabbes, and vlcers.

Vnguentum de Tutia Magiſtrale.

Rec. Olei Roſati, } ana.vj.vnces.
Olei omphaçini }
Olei Myrtini, } ana.ij.vnces.
Vnguenti populei, }
Foliorum Plantaginis, } ana.M.ij.
Solani, }

The herbes being well cut and brоſed, mire them wyth the oyles, lettinge them macerate together.viij.dayes. Then boyle them a little and ſtrain them. Which done, you ſhal adde of.

Ceræ

Ceræ albæ iiij.vnces and a halfe.

Boyle them vntyll the ware be molten, sturryng it wyth a slyse. And take it from the fire addyng to it of.

Lithargyri vi.vnces.
Pompholigos siue tutię preparatæ,
Ceruſæ tritæ, ana ij.vnces.
Plumbi vſti vj.vnces.
Caphuræ j.vnce.

Put all in a leaden morter and let it be stirred two houres continually, after put it into a vessel of glasse. And reserue it to thy vse.

Alind simile, Nicolai

Rec. Olei roſati, Ceræ albę } ana.vj.dragmes.
Succi ſolani j.dragme
Ceruſæ lotæ ij.dragmes.
Plumbi vſti et loti, Tutiæ præparatæ } ana.j.dragme.
Thuris halfe a dragme.

Melte the ware in the Oyle wyth a softe fyre then put them in a leaden morter and put the pouders into them, continually sturring them.

And

And then put to the iuyces of the herbes stur ring still for the space of syre howres.

These . ij . vnguentes are excellent in excic-cating ericipelas, filthy vlcers, also for vlcers of the legges, and doe fyll the holowe and emptye partes, it dothe further more refrigerate and cicatrise.

Vnguentum de lythargirio,

Rec.	Lithargyri.	ij.vnces.
	Cerusę	halfe a vnce.
	Aceti	j.vnce.
	Olei Rosati	quantum sufficit.

Make these in an vnguent wyth a softe fyre. It cureth vlcers and excoriations made through rydynge, straytnes of the shoe, or otherwyse happenyng.

Tripharmacum eiusdem Mesuæ,

Rec.	Lithargyri	ana, iij.vnces.
	Aceti fortis	
	Olei communis.	vj.vnces.

Let the Litharge be finely poudred and put to it the Oyle and Vyneygre and sturre them continually.

It is of the lyke vertue wyth the vnguent going

going before for it healeth scabbes, and blers of the skinne, and such like.

Vnguentum ad Scabiem.

Rec. Styracis liquidæ,
Terebinthinæ lotæ, } ana. ij. vnces.
Butyri loti,
Succi limonum j. vnce and a halfe.
Hellebori nigri puluerisati, j. vnce.
Salis. ij. vnces.

Myre them together and make thereof an vnguent according to arte.
It hath like vertues w̄ ẏ vngeuent going before.

Vnguentum de Minio.

Rec. Minij læuissime triti ij. vnces.
Olei Rosati } ana, ij. vnces.
Olei Myrtini,
Coquantur lento igni cum.
Ceræ albæ. halfe a vnce.

Make an vnguent therof according to art.

Aliud de Minio camphoratum,

Rec. Minij triti iij. vnces,
Lithargyri, ij. vnces.
Cerusæ, j. vnce and a halfe.
Tutiæ, } ana. iij. dragmes.
Camphoræ

Olei rosati j. pounde and a halfe.
Ceræ albæ ij. vnces.

The ware being molten in the oile vpon a soft and gentle fire, put it in a leaden morter & put the other symples made in most fyne pouder into it and sturre them continually.

This vnguent is good against old & maligne vlcers, and such as wil hardly be cured. &c.

Tetrapharmacon Galeni.

Rec. Picis nigræ,
Resinæ,
Ceræ,
Adipis vaccini, } ana. q. s.
Fiat vnguentum.

It doth heate & make moist the part to which it is aplied, it ceaseth dolour, & doth suppurate, & make mater or fanies. Wherfore it is right good for to bring apostemes to suppuration.

Vnguentum Basilicon minus Mesuæ.

Rec. Ceræ flauæ
Resinæ pinguis } ana. j. pounde.
Picis græcæ,
Olei communis quantum sufficit
Fit vnguentum lento igni,

Deme

Some put turpentine to it, some in the place of it doe put piche.

Thys Unguent aunswereth to the vertues of Basilicõ minus but it is moze weake. Wherfoze it is moze apte foz greene woundes of the heade and neruous partes and vlcers.

Vnguentum Basilicon maius Mesuæ Galeni Enneapharmacum est.

Rec, Ceræ albæ,
Resinę pini,
Sepi Vaccini,
Picis græcæ,
Picis nigræ,
Terebinthinę,
Thuris,
Myrrhæ
} ana.j.vncs.
Olei communis.s.q.
Fiat vnguentum.

Such vlcers as be wyth oute inflammation in the neruons and sinowye partes thys Unguent fylleth wyth flesshe and incarnateth verye well.

Unguenth

Vnguentum fuſcum Nicolai.

Rec. Olei, one pounde and a halfe.
Ceræ nouæ, iiij.vnce.
Picis Græcæ, } ana.ij.vnce.
Picis nigræ, }
Maſtiches, }
Galbani, } ana.j.vnce.
Thuris, }
Sagapeni ij.vnce.
Terebinthinæ, j.vnce.
Fiat vnguentum.

This vnguent hath a power and vertue of healing and attracting.

Vnguentum capitale Conciliatoris.

Rec. Gummi eleni, iij.vnce.
Hammoniaci, ij.vnce.
Terebinthinæ, } ana.iij. vnce. & a halfe.
Reſinę pini, }
Ceræ, quantum ſufficit.

Make of this an vnguent. And let the gummes bee dissolued according vnto arte, and so longe boyled vntyll they come almoste to the forme of a Cerote.

Vnguentum è Caprifolio Carpi.

Rec. Terebinthinæ,
Resinæ pini,
Ceræ nouæ, } ana. iiij. vnce.
Olei rosati, viij. vnce,
Masticis,
Thuris, } ana. j. vnce
Gummi eleni, ij. vnce.
Caprifolij,
Betonicę, } ana. iij. vnce.
Vini optimi, tenne pounde.

The Woodbyndes and Betonye beynge stamped, let them stande infused in Wyne foure and twentye houres. Then adde to them all the other percelles, excepte the Gummes, Frankensence and Masticke, boyle these on a cleare fyre vntyll the halfe parte of the Wyne be consumed, and that it begynneth to ware greene, then strayne it, and let it coole. Then boyle it agayne vntyll all the Wyne bee consumed

sumed, then straine it agayne, and then boyle it, and adde the reste of the percelles in fyne Pouder. And then put it in a colde place, and reserue it to thy vse.

Thys is a ryght excellent medicine in woundes of the head.

Vnguentum è Calce magistrale,

Thou shalte euerye daye ons washe the Chalke, and let the water bee taken awaye wyth a Sponge, doe this tenne dayes. Then washe it wyth Rose water, and let it dryye, and then

Rec. Huius calcis ita extinctæ, three vnce,
Olei rosati, one pounde
Ceræ albæ, thre vnce.

Melte the Ware in the Dyle, then takynge it from the fyre, put the Chalke made in moste fyne Pouder, vnto the Dyle and Ware, and make an vnguent of them accordyng to arte. Thys vnguente is good for burnynges and scaldynges.

Vnguentum populeon Nicolai,

Rec. Oculorum Populi arboris recentium mense Martio collectorum. a pounde and a halfe.
Axungię porcinę prępartæ. iiij.poũd.

The Pople buddes muste bee browsed, and mired with your Arungia vntyll your other herbes maye be prepared, then adde to it,

Folio-rum. { Papaueris agrestis, Mandragoræ, Hyoscyami, Solani, vermicularis aut crassulę, Lactuæ, Semperuiui, Bardanæ, Portulacæ, Violariæ, Vmbilici Veneris, } ana.iij. vncc.

The herbes must be mired and tempered with Arungia, then take of Wyne a sufficient quantitie: Boyle them to the consumption of the wyne, then strayne them and make of them an vnguent accordyng to art.

It is merueylous prećious agaynst ragynge beate

heate in Feuers, and it prouoketh slepe, the temples beynge annoynted with it. &c.

Vnguentum Dialthea simplex Nicolai.

Rec. Radicis altheæ, tvvo pounde.
Seminis Lini, } ana. j. pounde.
Fœnograeci, }
Olei, foure pounde.
Ceræ, j. pounde.
Terebinthinæ, tvvo vnce,
Resinæ, vj. vnces.

Let the rootes bee cutte and brouſed with the ſeedes, and ſtande three dayes in eyghte Pintes of water: then boyle them and take two pounde of the Muſilage and boyle it with the other thynges vntyll all that is waterye bee conſumed. And make thereof an vnguent accordyng to arte.

This vnguent doeth molifie, heate, and make moyſte.

Vnguentum Dialthæa cum Gummis Nicolai.

Rec. Radicum altheę, ij. pounde,

Seminis Lini, Fœnogræci,	ana. one pounde,
Pulpæ scillæ,	vj. vnce.
Olei,	foure pounde
Ceræ,	one pounde
Terebinthinæ,	two vnce,
Resinæ, Picis Grecæ,	ana. vj. vnce.

Make an vnguent as is afore sayde, then adde to the Gummes folowynge, first beynge dissolued in Vinegre.

Galbani, Gummi Hederę,	ana. two vnce.

Myxe them well, and reserue it to thy vse.

This vnguent properlye helpeth the payne of the Breste commynge of colde, and the Pluresie, and healeth all partes of the Brestes, whiche are refrigerated, it doeth moysten, molifie, and make whote.

Vnguentum Santalinum Mesuæ.

Rec.

Rec. Rosarum rubearum, one vnce,
Sandali rubri, j.vnce. ij.dragmes
Sandali citrini, } ana.vj.dragmes.
Sandali albi, }
Spodij, halfe an vnce.
Caphuræ, ij.dragmes
Ceræ albæ, iii.vnce. vi.dragmes.
Olei Rosati, j. pounde,
Boli armeni, vij.dragmes.

You shall melte the Ware in the Oyle, and washe it often tymes with colde water, after that all your other percelles beynge made in fyne pouder, you shall put them together, and make a fyne vnguent accordynge to art.

It doeth extinguishe and putte awaye all inflammations of the lyuer and stomacke, and other partes of the bodye.

Defensiuum magistrale.

Rec. Boli armeni, }
Sanguinis draconis, } ana. i.vnce
Terræ sigillatæ, }

Olei Rosati	vi.vnces.
Ceræ	j.vnce and a halfe.
Aceti	iiij.vnces.

Boyle the oyle, Uenegyer, and ware together vntyll the Uenegre be consumed. Then takynge it from the fyre when as it begynne to refrigerate and ware colde, putte to your other percelles made in fyne pouder and reserue it to thy vse.

Mundificatiuum, magistrale.

Rec.	Mellis Rosati colati	i.vnce & a halfe.
	Terebinthinæ claræ	iij.vnces.
Succi	Apij, Prasij }	ana.fyxe dragmes.
Succi absinthij		ij.dragmes.

Simul coquantur, deinde addentur.

Farinæ	Hordei, Fabarum }	ana.vj.dragmes.
	Lupinorum, Orobi }	ana.iij.dragmes.

Sarcocolle

Sarcocollę
Myrrhę } ana. j. dragme and a halfe.

Bryng them into pouder and make an Unguent accordinge to arte. And this Unguent is right excellent to mundyfie a wonnde or fylthye vlcer, and thereof it is called mundificatiuum magistrale.

Vnguentum viride Andromachi ex Galeno.

Rec. Resinæ Pini ij. pounde.
Ceræ j. pounde and a halfe.
Olei communis viij. vnces.
Aeruginis æris iij. vnces.

You shall put the Rosen and ware into the oyle and melt them together, then put to your Erugoeris made in fine pouder, & make thereof an vnguent as art requireth. It healeth greene and freshe woundes and such lyke. &c.

Vnguentum apostolorum Auicennæ,

Rec.

Rec. Ceræ albæ
Terebinthinæ
Resinæ,
Hammoniaci } ana. xiiij. dragmes.

Aristolochiæ longæ
Thuris
Bdellij } ana, vi drames

Myrrhe,
Galbani, } ana fovver dragmes,

Lithargyri viij, dragmes

Opopanacis
Aeruginis } ana, ij, dragmes

Olei commnnis ij, pounde
Hyeme verò iij, pounde

You shall dissolue your Gummes in good white vineger, then put them to your oyle ware Rosen, Turpentine, and Litharge, and boile them on the fyre vnto the consumption of the venegre. After warde the other percelles being made in fyne pouder you shall also adde: and make an vnguent accordyng to arte.

It is of greate force agaynste woundes and vlcers whyche are harde to be cured: also for fistulas, it taketh alwaye deade fleeshe and restoreth

reſtoreth in the place ſounde and newe. It doeth moliſie and heale. &c.

Vnguentum Aegyptiacum Meſuę,

Rec. Aeruginis, fyue dragmes.
Mellis, fouretene dragmes,
Aceti albi, ſeuen dragmes,

Boyle theſe on the fyer, and ſtyre them ſo longe vntyll it be Redde. Other take of thys vnguent, ſixe vnce.

Calcanthi vſti, ij.vnce.
Olei roſati, iij.vnce.
Cerę, quantum ſufficit.

Make all in an vnguent accordyng to arte. This is ryghte good agaynſt olde woundes, Fiſtulas, and alſo it taketh awaye ſuperfluous fleſhe, and doth vehemently excicate & drye.

Aliud Ioannis de Vigo.

Rec. Aquę plantaginis,
Vini malorū gran. } ana. ij.vnce.
Mellis,

Alumi.

Aluminis rupis,
Aeruginis, } ana.x.dragmes.

Boyle these together, and styre them so longe vntyll that it ware redde, then reserue it to thy vse.

It serueth to the lyke effectes as the other before.

Aliud Guidonis.

Rec. Mellis, one pounde.
Aceti optimi, sixe vnces.
Aeruginis, one vnce.
Aluminis rupis, fiue dragmes.

Boyle and styre them so longe together vntyll they ware redde. Then let it coole, and keepe it to thy vse.

Vnguentum defensiuum & repercussiuum Brunswicensis.

Rec. Olei rosacei, iiij.vnce.
Boli armeni, ii.vnce.

Terre

Terræ sigillatæ, Fœnogręci,	ana.j.vnce.
Caphuræ,	j.dragme
Solatri, Semperuiui,	ana. j. M.
Cerę,	tvvo vnce,

Bruise the herbes and straine them, and put them to the other thynges: and make of all an vnguent accordyng to arte.

This vnguent is vsed to defende woundes from accidentes. Also in the begynnynge of inflammations, to cease or rather let the flure of humours.

Vnguentum incarnatiuum eiusdem.

Rec.	Terebinthinæ,	iiij.vnce.
	Mellis,	halfe an vnce.
	Olibani,	one dragme.
	Croci,	one scruple.
	Olei rosacei, Ceræ,	quantum sufficit.

Make hereof an vnguent accordyng to art.

It is a ryght good incarnatiue, prouokynge and causynge flesshe to growe in all maner of woundes. &c.

An

Vnguentum ad phlegmones & pruritus.

Rec. Olei rosati thre vnces.
Infrigidantis Galeni } ana j. vnce
Vnguenti rosarum }
Populionis }
Succi plangtaginis, } ana half a vnce
Semperuiui }
Vini granatorum }
Aceti rosarum ij, dragmes,
Lithargyri auri } ana, j vnce & a halfe
Argenti }
Cerusæ fyue dragmes,
Tutiæ one dragme

Put the oyle the iuyces veneger and wyne in to a morter of lead, and labour them well, and put thereto the meneralls in fyne pouder, and when they are well wrought, put thereto the vnguentes and worke them all together and so make your vnguent.

This vnguent is for iche of the leggs and inflamation, excoriation, burning and blisteringe, comminge of whote humours, and for whote and sharpe vlcerations. &c.

Unguentum

Vnguentum Phomphligos,

Rec.	Olei rosati	tenne vnces.
	Ceræ albæ	three vnces.
	Succi Solatri	viij, vnces,
	Ceruſæ lotæ	thre vnces,
	Plumbi vſti, Tutiæ	ana ii, vnces
	Thuris,	i, vnce

Boile the iuyce of nightſhad wyth the oyle, tyll the iuyce be conſumed, then put to the wax, and when it is relented, and ſet from the fier ſo that it be neare colde, put thereto the Ceruſa, brunt leade, Tutia, and Thus made in fyne pouder, and ſearſed through a fine ſearce, ſturre them well together and keepe them in a tinne pot. &c.

This vnguent is not onely good in dryng vp of vlcerations of the legges and other places of the body, but it is alſo an excellent remedye, to preſerue a canker vlcerat, that it go no further, and alſo a ſinguler good remedye, for all other Canſerous vlcerations, both in the breſt and in all other places of the body.

Vnguentum

Vnguentum Nicolai Florentini.

A speciall vnguent for the crampe, if the Pacient haue no Feuer, it was practised by Nicholas Florentine.

TAke a fatte Goose, and take out her bowels then take a Catte and cutte her in smale peeces, and put the same peeces into the bellye of the Goose, with smale peeces of Bacon, Myrrhe and Frankensence mingled all together, then sowe vp the bellye of the Goose, and put her on a spytte, and roste her at a softe fyer. Set a dripping panne vnder her with Vineger and whyte Wyne, and when the water of the Goose is dropped awaye, then let the fatte droppe into the Vineger and the Wyne. After take the fatte that swymmeth aboue the Vineger and Wyne, and keepe it in a vessell, and boyle the Goose agayne in the fore sayde Vineger and Wyne, and much fatte wyll come from her agayne, and then take thys fatte and mixe it with the first, that dropped from her. And wyth this vnguent annoynt the member whiche hath the crampe, for it is very precious, and hath vertue to seace payne, to waste, consume, and drye vp euyll humours,

and

and to comforte the members, if some of thys vnguent, be put into the vnguent, vsed in Chamæleontiasi, it helpeth very much, & doth seace the paine of that contagious sickenes.

Vnguentum Ioannis de vigo Contra Chamæleontiasin.

Rec.	Olei spici	one vnce.
	Vnguenti pro spasmo	two vnces.
	Axungię porcinę	iiij. vnces.
	Olibani	halfe a vnce.
	Euforbij	one dragme and a halfe.
	Vnguentū de althea }	ana. j. vnce.
	Vnguentū Agrippæ }	
	Argenti Viui	iiij. vnces.

LEt all these be beaten to gether in a morter of Iron or stone tyll no parte of the Argent Viue, be seene, but see thou mortifye the same fyrste in a little glasse wyth Meneyger and fastynge spattell, that it maye the more easelye myngle wyth the fore-

sayde thynges , and doe lesse hurte in the worckynge , lette your Olibinum and Euphorbium be made in fyne Pouder , and searsed fyne before you myxe them with the forsayde thynges . Prouided alwayes that the matter antecedent be dygested , and sufficientlye purged , before they laye thys vnguent on the bodye.

Aliud Vnguentum pro eadem Chameleontiasi.

NOte that this vnguent accordyng as Nicholas Massa , and other notable writers both olde and newe dothe testifye , it dothe heale not onely the paynes of that same contagious sycknes, but also the breaking oute of those that be scabed , it resolueth harde Apostemes which is called grumas , bunches , or harde knots of the sinewes of the armes and of other places , also it healeth vlcers of euyll curation or harde to be cured . Thys vnguent must be applyed vppon the legges, the armes, and vppon the ioyntes, chefye in the hammes in the bowynge of the armes , the wreste of the handes , the wreste of the foote , and the soles of the feete . Also you must annoynt tho

the sores therewythall, but beware ye laye not thys vnguent nie the principall partes: as the breaste and the stomacke, but you maye annoynte the shulder blades the buttockes wyth it, and yf nede be ye maye laye a lyttle on the foreheade and thys is the makynge of it.

Rec. Axungiæ porcinę the lyttle skynnes taken from it withoute meltyng of the fyre. ii. pounde.

Argenti viui	ij. pounde
Litargyri	iij. pounde.
Cerusæ	iij. vnces.
Olibani	j. vnce.

Fyre all these together and make thereof an vnguent, in a morter, but fyrste of all you muste beate the swynes grease and the Argent viue together verye stronglye, then put in the other thynges in fyne pouder, and labour it well wyth your pestell vntill it be so fine that none of the Argentum viuum be seene.

Note that thys vnguent is the chefe matter of all the curation of thys desease, for because you maye myxe other medicynes, wyth thys medicyne accordynge to the diuersytie of the sickenes that the patient hathe: as an example. If the syckenes came wyth harde swellynge, adde Capons grease, Duckes grease or Gouse grease, and sometyme you maye adde all these thynges, and sometyme one, as you see cause, for wyth their whotenes and moystenes they doe resolue the hardnes, and so comforte the hurte member, and yf it chaunce that there be swellynge wyth great payne, you maye adde Oyle of Lilyes, of Bayes, of Dyll, and Turpentyne, ether one of them, or moo as ye see cause, for they be stronger in operation, and their vertue is greate. And yf the desease be malygne or Virulent, that the Paciente maye not be altered or holpen wyth a lyghte medcyne, put in moze of the Argentum Viuum, & adde thervnto Aqua vitę, Sage, Stichados, treacle, Myrrhe and Masticke. It is to be feared of excoriacion that may come, by the strength and Corrosion of the Argentum Vinum. Therefore we correcte thys vnguente wyth Lithargyri and Ceruſa, as we haue wryten here before in thys vnguent. And as you

you doe fynde dyuers thynges added vnto thys Unguent , So dothe it remoue diuers accidentes and syckneſſes . But beware you mynyſter not thys vnguent wythoute deſcretion , for euen as it dothe helpe thys contagious diſeaſe beynge ryghtlye vſed : So beynge vſed wythoute diſcretion it dothe kyll and deſtroye.

Prouided alwaye that thys be not mynyſtred wythoute purgation and digeſtion of the matter antecedent . The Pacyente maye not goe abroade after hys ſwettynge vntyll ſuche tyme as his mouthe be hole , and muſte vſe good lotions , or waſhynges for hys mouth vntyll it be hole.

Tertium vnguentum pro Chamęleontiaſi.

Rec, Laureolę
Abſynthij
Fumarię
Centaurij. } ana.M.ſ.
Euphorbij
Elebori albi. } ana.iij . dragmes.
Colocinthidis. ij.dragmes.

Boyle your Herbes, your Pouder and Coloquintida altogether, your Herbes beynge a lytle brouſed in a morter, and your Coloquintida broken in ſmale peeces in one Quarte of good Paluieſie, tyll the halfe bee conſumed, then lette it ſtande a daye and a nyghte infuſed, and ſtrayne it and adde thereunto,

Succi Rutæ,	}	
Saluiæ,	}	ana. ij. vnce.
Ebuli,	}	

Then take Axungiæ, xii. vnce.

Ping. Anatis,	}	
Caponis,	}	ana. iiij. vnce.
Oyle de Bay,		vj.. vnce.
Lithargyri auri,	}	
Olibani,	}	ana. ij. vnce.

Maſtiches,

Mastiches,	}	
Aloes cicatrinæ,	}	ana. halfe an vnce.
Scammoniæ,	}	
Argenti viui,		viii. vnces.

Make all those thynges that are to bee made in pouder: in fyne pouder, and mortifie your argente viue wyth fastynge spatell or wyth iuse of Lymons. Then beate all your foresayde thynges together, puttynge in youre iuyse and youre decoction together by lytle and lytle, continuallye labourynge it in a morter vntyll it bee brought to a perfyte vnguent.

This vnguent muste bee applyed vppon the legges, and armes as other vnguentes bee that serueth for the same disease. And yf you wyll haue them more laratiue, annoynt the nayuyll therewyth. It taketh awaye apostemes, vlcerations and breakinge oute of the body, and dolour and paynes springing of the same sicknes.

Aliud vnguentum pro eadem Chameleontiasi.

Rec. Maceris,
Cinamomi, } ana. halfe an vnce.
Garyophil
Granorum paradisi, tvvo dragmes.
Foliorū rosarum rub. }
Corticum limonum, } ana. v. dragmes,
Nucum musc. numero. iiij.

Let all these be beaten together and layed in steepe in Rose water, the space of one daye and one nyghte, then put vnto the same water and spyces, of swynes grease and newe suet, fyue pounde. Boyle them together vntyll the water be consumed, and strayne it. Than take of that same, two pounde.

Argenti viui, seuen vnce.
Olibani, tvvo vnce.
Mastiches,
Ceruse } ana. an vnce & a halfe.
Litargyri,
Sœchados, }
Myrrhæ, } ana. halfe an vnce,

And

And in the ende put of Muske resolued in oyle of Roses, halfe a Scruple. And let these be mixed together, and make thereof a fyne vnguent accordynge to arte, as is aforesayde. And thys vnguent is for ryche and dilicate personnes, and is also meruelous in operation, and muste bee vsed as these are, whiche serueth for the same infyrmitie.

Vnguentum Agypsiacum.

Rec.	Mellis,	tvvo pounde
	Aceti fortis,	one pounde
	Viridis æris,	foure vnce
	Aluminis,	three vnce

Boyle all these together on a softe fyer, vntyll it bee Redd, for yf you boyle it to muche, it wyll bee Blacke, and yf you boyle it to lytle, it wyll bee Greene. Therefore when it is boyled enoughe, it wyl bee perfitely Redde. This vnguent I haue found great profyte in, to mundifie sores, for it taketh away rotten flesshe wythout anye greate payne, it doeth also profyte muche in Fistulays, and hollowe Vlcers, yf it bee mingled wyth some conuenient lycour, and conueyed in wyth a syringe.

It doth also abate & take awaie spongious flesh bothe in woundes and in vlcers, and maketh them come to easye Cicatrization, and thys vnguent is muche praysed, bothe of the olde wryters, and of the newe in manye other thynges.

Vnguentum Dealtheæ

Rec. Radicum altheę ij. pounde.
Sem. Lini
Fœnogręci } ana one pounde.
Olei communis iiij. pounde
Ceræ j. pounde.
Terebinthinæ,
Galbini } ana. iiij. vnces
Gummi hederę ii. vnces.
Colophonij
Perrosin } ana halfe a pounde.

Washe

Waſhe your rootes cleane and bruſe them in a morter, and bruſe your Lyne ſeede and Fengreke alſo, and putte therevnto of Scylla, bruſed, halfe a pounde putte vnto all thys, eyghte pintes of water, and let them ſtande three dayes, and the fourth daye boyle them vppon the fyre tyll they begynne to wax thycke. Then put them into a potte and when you wyll ſtraine it, put therevnto ſome whote boyling water, that it maye the better be ſtrai-ned, then take of thys mucylage or ſtray-nynge two pounde and a halfe, and put vnto your oyle aforeſayd, and let them boyle to the mucylage be conſumed. Then put there-vnto your ware, your Turpentyne your Galbanum and Gumme Edere, deſolued in Veneyger and ſtrayned, then your perro-ſin molten wyth a lyttle oyle of Lilies, and laſt of al put in your Colophonium in fine pou-der: continually ſturring al theſe together tyll they be cold and ſo kepe it. This vnguēt called Dealthea, is a ſpeciall remedie for al paines of ye breſt, that cōmeth of cold, yf the breſt be therew̄ all anointed & warme cloeſe laid thervpon. It is good alſo for the pluriſie, for it doth reſolue and molifie, which are required in both theſe deſea-ſes, it is good alſo for ſhrynkynge of ſynowes and tendones, and alſo for croked ioyntes, for it mollyfieth and ſupplyeth them gentillye

ſo

so that it maketh them easely to stretche further agayne. Many other good properties it hathe in doynge of suche lyke thynges.

Vnguentum desiccatiuum Rubeum.

Rec. Lapidis calaminaris,
Terræ sigillatæ Rubeæ } ana. iiij. vnce
Lithargyri auri,
Cerusæ, } ana. thre vnce,
Camphoræ, one dragme,
Ceræ, fyue vnce.
Oleorum rosarum,
Violarum. } ana. vi. vnce.

Washe your Lapis calaminaris, Litharge, and Ceruse, and drye them agayne, and make all these in verye fyne pouder, that is to bee made in pouder. Then melte your Oyles with your Ware, and in the coolynge put therein your pouders, continually syrynge it with a slatter vntyll it bee colde, and so keepe it to your vse. Some doe adde vnto thys vnguent, Oyle of Menupher one vnce, Olibanum,

Olibanum and Mastick ana. one vnce, and yf you so do it is the better.

Thys vnguent is verye good to drye vp vlcerations, and chefly of the legges after that they be mundified, and the flesshe well incarnat, for other wise it profiteth not, for it serueth for no other purpose, but onely to drye and to defend humours and to make perfite Cicatrization.

Oleum roſatum.

Rec. Olei communis iiij.pounde.
Roſarū rubrarum purgatarū.xvi.vnces

Macerate them and let them ſtande in the ſunne eyght daies: then take out the Roſes and ſtrayne them. After put in newe Roſes and let them in like maner ſtand eyght dayes & ſtrayne them as afore. And doe ſo the thyrde tyme. And reſerue thys to thy vſe, ſome vſe to let the Roſes remayne in the oyle the laſte tyme.

It doth refrigerat and is aſtringent, and helpeth inflammations in the partes of the body, and it ceaſeth the corroſion of the inteſtines miniſtered in gliſters, and healeth the payne of the teeth, they beyng waſhed therewith.

Oleum Roſatum completum Meſuę.

Rec, Olei ex oleis maturis, aqua fontana multoties loti quantum voles.

Put

Put into this Oyle of reede Rose leaues so many as you shall thinke conuenient, set these in the sunne eight dayes, then boyle them in a duble vessell on the fire three howers. Then strayne them. After take newe Roses, and doe as afore is sayde. And do so also the thyrde tyme. After put to the fourth part of water of the infusion of Roses and let them stande in the sunne. xl. dayes. Then strayne it and agayne put to the iuyce of Roses, and let it stand in the sunne.

It doeth strengthen the partes of the bodye, it resolueth, and seaceth dolour.

Oleum Rosatum Pauli

Rec. Rosarum exemptis vnguibus iij. vnces.
Olei omphacini vj. vnces.

Put these in a glasse and stoppe them well that they breath not out and let them stande in the sunne. xl. dayes. Other doe not sette the glasse in the sunne but hang the glasse in a well nere to the water for the space of. xl. dayes.

It doth extinguishe inflammations, it dothe corroborate, restrayne, and sease fluxes, it kepeh backe the humours whyche floweth throughe the bodye. &c.

Oleum

Oleum Rosatum omphacinum.

Rec. Olei Oliuarum immaturarum
loti. j.pounde
Rosarū rubrarum purgatarū iiij.vnces.

The roses being bruised and myred wyth the Oyle put them in a glasse, and do as is afore-saide in the composition of the other oyles. And chaunge your Roses three tymes.

The vertue of this oyle is all one wyth that whych is mencioned before.

Oleum Chamæmelinum Pauli.

Rec. Florum Chamæmeli, demptis Foliis
Albis, iiij,vnces,
Olei oliuarum ij,pounde and a halfe

The flowers must drye in the shadowe.xxtiij. howers:then put them wyth the Oyle into a glasse wyth a narrowe mouthe beynge well stopped and let it stande in the sunne.xl.dayes.

It is of ryght good effecte in the passions of the ioyntes, & for the the collicke and many o-ther infyrmityes;for it dothe repell and mode-ratelye digest.

Oleum

Oleum Cydoniorum Mesuæ,

Fiat ex carne cydoniorum præmaturorũ cũ cortice. Succi cydoniorũ ana, vi, vnces, Olei oliuarum immaturarũ iii, pounde

Put all in a Glasse well stopped and lette it stande fyftene dayes in the Sunne. Then boyle it by the space of foure houres on the fyer in a double vessell. Then strayne it, and presse out the iuse. Then put newe into the Oyle, and sette into the Sunne, after boyle it, and erpresse it as afore, and doe so the thyrde tyme, and reserue it to thy vse.

It doeth refrigerate and stayeth flures, and doeth also strengthen the bellye and Nerues, beyng applyed vnto them. &c.

Oleum populeon Nicolai,

Rec. Olei, vij. pounde, tvvo vnces,
Vini, iiij, pounde.
Gemmarum Populi arboris recentium, iij, pounde

The Buddes of Pople muste bee brouſed and macerated in Oyle and Wyne, the ſpace of ſeuen dayes. Then boyle them in a double veſſell vntyll the Wyne bee conſumed; then ſtrayne it, and reſerue it to thy vſe.

It helpeth payne in the head, in the ſoyntes, and is good agaynſt the goute, and where as dolour and payne is. &c.

Oleum Nardinum compoſitum Meſuæ.

Rec. Nardi Indicæ, foure vnce.
Sampſuchi, id eſt, maioranæ, ii. vnce.

Ligni aloes,
Enulæ,
Folij indi,
Calami aromatici,
Foliorum Lauri,
Cyperi,
Schœnanthi,
Cardomomi,
} ana. vnce. j. ſe.

Brouſe all theſe, and putte to it of,

Vini,

Vini,
Aquæ, } ana. q. ſu.
Olei loti, vj. pounde,

Let them be macerated twelue houres together. Then boyle them in a double veſſell, and make an Oyle accordyng to arte.

This Oyle doeth heate, attenuate, and digeſt, wherefore it is ryghte good in all colde and wyndye infirmities of the brayne, ſtomacke, Lyuer, Spleene, Keynes, Bladder, and Matrice. It doeth alſo cauſe good colour of the bodye. &c.

Oleum Sampſuchinum.

Rec. Foliorum Sampſuchi, id eſt, Maioranæ, M. iiij.
Serpelli, M. ij.
Foliorum Myrti. M. j.
Abrotoni, } ana. M.
Siſymbrij ſeu mẽtę aquaticę, } halfe.
Caciæ, tvvo vnces.
Olei omphacini quantum ſufficit.

Cut and bruse the herbes and put them in a glasse & set thys glasse in the sunne eyght daies: Then strayne it, which done put other newe percelles and boyle it agayne and strayne it and doe thys the thyrde tyme.

It helpeth lassitude & werynes and is ryght comfortable in passions of the brayne and nerues. Therefore the spine of the backe beyng annoynted wyth it, it helpeth the Palsey and crampe and is good agaynst the sting of Scorpions. &c.

Oleum hyperici magistrale.

Rec. Olei veteris foure pounde.
Vini albi potentis one pounde.
Florum Hyperici cum semine recentium, M.iiij.

Bruse the flowers and macerate them in the wyne and oyle beyng put in a glasse well stopt two dayes. Then boyle them, strayne them, and put newe flowers to them, this do thryse then put to euerye pynte of this of.

Terebinthiæ

Terebinthinæ fixe vnces.
Olei absynthij three vnces.
Dictamni,
Gentianæ,
Cardui benedicti, } ana tvvo dragmes.
Tormentillæ
Carlinæ
Calami aromatici
Lumbricorum in Vino pluries Lotorum, tvvo vnces.

Wruse all and let them stande in the Sunne foure dayes. And stoppe the glasse well and receyue it to thy vse.

It hathe the vertues wyth those goynge before. And is of more force in the same infyrmityes. &c.

Oleum Castorei magistrale.

Rec. Castorei,
Styracis calamitæ
Galbanj,
Euphorbij,
Casiæ,
Croci,
Opopanacis,
Carpobalsami,
Spicæ nardi indicæ
Costi,
} ana two drames

Cyperi,
Schœnanthi,
Piperis longi,
Piperis nigri,
Sabinæ,
Pyrethri,
} ana.ij, drames and a half.

Olei, foure pounde.
Vini, two ponnde,

Dissolue the Opopanax and Galbanum in some part of the wyne. Then brouse the other thinges and put them to the oyle and rest of the wyne. And boyle them vntyll the wyne be consumed. Then strayne it and put the Gummes and Wyne in whych they were dissolued to it, and boyle them together vntyll the wyne be consumed and reserue it to thy vse.

It

It is a singuler remedye for al colde passions especially of the ioyntes and neruous partes. It healeth the palsey crampe & rigoures in feuers if you anoynt the backe with it. &c.

Oleum Costinum Mesuæ.

Rec. Costi, tvvo vnces.
Casiæ one vnce.
Summitatum sampsuchi, viii. vnces.
Vini quantum sufficit
Olei oliuarum, thre pounde,

Boyle these and macerate them. vj. daies, then boyle them in a duble vessell vntil the consumption of the wyne and reserue it to thy vse. &c.

It openeth obstructions helpeth the synowye partes muscles tendons and ligamentes. Also the stomacke, and lyuer, and helpeth muche to the increasyng of good colour in the body. &c.

Oleum papauerinum.

Rec. Capitum papaueris, } ana partes æquales.
Foliorum papaueris }
Florum papaueris, }
Olei quantum sufficit.

Put these in a Glasse, and let them stande seuen dayes in the Sunne, then strayne them, and put newe to the Oyle, thys doe three tymes.

It taketh awaye whote distemperaunce, and paynes and griefe springyng hereof.

Oleum Lumbricorum.

Rec. Lumbricorum terrestrium, halfe a poũd:
Probe lauentur in vino, deinde immittantur in olei rosati omphacini, ij. pound.
Vini, tvvo vnces.

Boyle all in a double vessell vnto the consumption of the wyne, then strayne them, and reserue it to thy vse.

It cureth the colde passions of the Nerues, and is profitable for dolour and payne of the ioyntes, &c.

Oleum Balsami Petri de Ebeno.

Rec.

Rec. Myrrhæ,
Aloes,
Spicæ nardi,
Sanguinis draconis, } ana.ij.dragmes.
Thuris,
Mumiæ,
Opopanacis,
Carpobalsami,
Bdellij,
Hammoniaci,
Sarcocollæ,
Croci, } ana.ij.dragmes.
Mastiches,
Gummi arabici,
Styracis liquide,
Ladani, } ana.ij.dragmes, & a halfe.
Castorei, }
Mastiches, halfe a dragme.
Terebinthinæ, ad pondus omnium.

Bruise those that are to bee bruised, and mixe them together, and destill them in a glasse a lembike accordyng to arte.

It is of greate force and strengthe agaynst those infirmities, whyche spryngе of colde causes, &c.

Oleum Balsami Bransvvicensis.

Rec. Ligni aloes, tvvo vnce.
Opopanacis,
Resinæ de Pino,
Bdellij,
Galbani, ana.iij. vnce.
Ammoniaci,
Mastiches,
Sarcocollæ,
Gummi elemij,
Olibani,
Myrrhæ,
Gummi cupressi, ana.iij.vnce.
Olei Laurini,
Olei Benedicti,
Laudani,

Carpobalsami,
Xylobalsami, ana.j.vnce.
Opabalsami,
Sanguinis draconis, halfe an vnce.

Castorij,

Castorij,
Spicæ nardi,
Cububæ,
Maceris,
Cinnamomi,
Granorū paradisi,
Corticis citri,
} ana.j.dragme.
Olei Terebinthinæ, omnium pondus.

Put all these together, and distill them by a Glasse alimbecke, and reserue it to thy vse.

This is the Baulme wherewyth greene and freshe woundes are spedilye cured and healed, and it hath merueylous vertues as shall appeare to hym that putteth it in practyse.

Balsamum viride nostræ inuentionis.

Rec. Olei Rosarum, one pounde & a halfe.
Put it in a panne, and put thereto

Rorisemarinę,
Capharę,
} ana.iij.vnce.

Let

Let them be brosed before you put them in, then take.

Malicorij j. vnce and a halfe.
Ligni vitę tvvo vnces.

Beynge made in fyne Pouder then boyle all these together the space of an howre, straine them and put to the streanyng.

Terebinthinæ i. pounde.
Aquæ vitę iiii. times stilled, one pound put into your aqua vite.
Aloes Cicotrinæ, i. vnce.
Rubarbaræ, i. vnce and a halfe.

Let these be made in fyne pouder and let it stande two dayes infused, then strayne it, and put the Aqua vite so strayned to your oyle and Turpentyne aforesayde, then sette it on the fyre and let it boyle a lytle, tyll the most parte of the Aqua vite be consumed, then take pouder of.

Mastiches } ana foure vnces.
Olibani }
Viridis eris } ana. ii. vnce.
Lumbricorū pulueriſat }

Mashe

Waſhe your wormes fyrſte in whyte wyne, then boyle all theſe thynges together a lyttle ſpace, then take it from the fyre and ſturre it tyl that it be colde, and ſo vſed accordyng to arte.

Balſamum artificiæ Lullij.

Rec.	Terebinthinæ	j. pound and a half.
	Galbani,	tvvo vnces.
	Aloes cicotrinæ,	ana. i. vnce.
	Maſtiches,	
	Caryophil,	
	Galangę	
	Cinnamomi,	
	Nucum muſtat.	
	Cubebarum	
	Gummi hedere,	halfe an vnce.

When all theſe is well beaten, myre them and deſtyll them in a Limbecke of glaſſe wyth a ſlowe fyre firſt, and receiue the fyrſt by it ſelfe ſeuerally: then increaſyng the fyre, a water ſomewhat reddiſhe wyll come, and after increaſyng it more, an oyle of redde colour, and ſo doe tyll nothynge runne any more, chaungynge the reſeiuer thrise. This oile hath al the vertues of true Balme; for it ſinketh in the water, and

courdeth

courdeth milke by and by: for if one droppe of it warme be put into a pynte of mylke, it shall forthwith become courded. The firste liquor is called water of balme, the second oyle of balme the thyrd Balme artificiall. The first is profitable against the runninge of the eares, yf two or three droppes morning and euenynge be put into them, also dropt into the eyes, it amendeth the blearednes, & consumeth the teares, it doth meruelously restraine superfluous humours in any part of the body. It taketh away the tothach if they be washt therewith, & kill the wormes if there be any in them. The thyrde liquor wyll suffer no venom: for it is an vtter enemye & destruction to spiders and Serpentes, two or three dropes being let drope into any vnemous bytting, do make it hole strait. If thou draw a circle with this liquor, & shut a venomous beast ther in, it shall dye there rather then go out of it. To be short, it doth all the same thynges that triacle doth, but more effectually all thynges. Beyng powred or put vpon any inposume, with in .ix. dayes it healeth them, and likewise a fistulaye, be it neuer so yll: and also, Noli me tangere all diseases brede of fleame and colde humours it healeth them, yf a linnen cloth dypped in it be layde vpon the place where the grease is, it putteth away vtterly the palsey and all trimblinge of members, it strengtheneth meruelously the si-

newes

newes: it is whotter then the first and second, if a man put a droppe of it in hys hand, it perceth streyte without greese. To conclud, it doth many other thynges, and all diseases rysen of a cold cause, it health them, if they vse it ryght according to arte. All this is Lullius saying.

Aliud Balsamum Dorantij.

Rec. Ammoniaci,
Opopanacis,
Resine pinę,
Bdellij,
Mastiches,
Galbani,
Gummi eleme,
Olibani,
Myrrhe,
Sarcocollæ,
} ana halfe an vnce.

Xylobalsami, i. vnce.
Olei benedictæ, } ana one vnce
Laurini } and a halfe.
Balsami Gul. Placentini, half an vnce

Sanguinis

Sanguinis draconis,
Laudani puri, } ana.ij.dragmes

Spicæ nardi,
Castorij,
Galangę,
Cubebarum,
Cinamomi,
Cardomomi,
Granorum paradisi,
Corticis citri, } ana.j.dragme.

Olei Terebinthinæ, ad pondus omnium.

Let all those bee made in pouder that are to bee made in pouder, and the Gummes that can not bee made in pouder, lette them bee cutte in smalle peeces, and putte into a Glasse vessell, with the Oyle and Balme aforesayde, and let them lye in steepe nyne dayes, then destill them in Balneo mariæ, the the space of foure houres, then let them stande seuen dayes more, and destill them agayne as is aforesayde, then strayne them. So haue you a precious Balme, whiche you maye keepe to your vse, for the curynge of woundes, bothe in the similer and instrumentall partes.

Bal-

Balsamum ex intestinię terræ, nostræ Inuentionis

Rec. Lumbricorum halfe a pounde. put them in white wine to purge them one daye, then set them & make them cleane from all earthye matter, then stampe them finely and put to thē one quart of good Malmesie, & one quart of oile of Iuniper, boyle them all together tyll the wyne be consumed, then straine it, and adde to the straining.

Opopanacis } ana i. vnces.
Ammoniati }
Gummi Arabici, foure vnces.

Desolued in benegre according to art.

Olibani, } ana ii. vnces and a halfe.
Mastiches, }
Myrrhæ } ana. j. vnce
Sang. draconis }
Olei Hpyrici, } ana, vi. vnces.
Terebinthinæ }
Boracis, iiij. vnces.
Aquę vite fortissime, iiii. vnce & a half.
Croci, ij. dragmes
Terebinthinæ. twelue vnces.

Boyle all these together in a bodye of glasse, in Balneo mariæ, vnto the wyne and Aqua vite be consumed, then let it stande twentye dayes infused, and after that boyle it agayne two howers and so strayne it, and kepe it to your vse. This Balme is moste precious in woundes of nerues and iunctures of all other.

Balsamum ex Croco nostre inuentionis.

Rec. Foliorũ consolide maioris
Consolidæ minoris,
Marrubie,
Centaurij
Hipericc,
} ana. M.i.

Florum Rorismarini,
Chamamille,
} ana M.s.

Let your flowers and herbes be dry and grose beaten, and put to them one pynte of Oleum Lumbricorum, and one pynte of Malmesye. Then let them boyle all together softelye, the space of two howers in a potte very closely stopped, then straine it and adde to the straining.

Mastiches,
Myrrhe
} ana one vnce.

Olibani

Olibani, } ana, i. vnce and a half.
Croci }
Sang. draconis. }
Gummi dragagant } ana halfe a vnce.
Sarcocollæ, }
Laudani }
Castorij } ana, tvvo dragmes.
Bingemj, }

Make all these in pouder then adde to them
Oleorum Terebinthinæ, iiij, vnces,
Spicæ nardi, one vnce.
Terebinthinæ lotę, vi. vnces.

Boyle all these in Balneo mariæ, according to arte.

This Balme is most precious in woundes of the brest that perceth thorow into the bodye, as I haue many times proued my selfe.

Emplastrum de meli-
loto Mesuæ.

Rec. Meliloti. vj. vnces.

Florum chamæmeli
Fœnigræci,
Baccarum lauri,
Radicum altheæ
Comarum absinthij
} ana two dragmes.

Seminis absinthij,
Cardamomi
Iridis
Cyperi,
Spicæ nardi.
Casię
Sęminis ammi
} ana. j, dragme and a halfe.

Foliorum persici three dramges.
Hammoniaci, tenne dragmes.
Styracis
Bdellij,
} ana. v. dragmes.
Terebinthinæ one vnce and a halfe.
Ficus pinguis numero, xii.
Sepi hircini
Resinæ
} ana. ij. vnces and a halfe.
Picis,
Ceræ vj. vnces,

Olei

Olei sampsucini } ana. one pounde,
Olei nardini }

Confice, sic
Fit decoctio,

Meliloti }
Fœnigræci } ana. q.s.
Chamæmeli }

Boyle these vnto the consumption of the half then strayne them and put therto your percells fynely made in pouder and boyle them againe addynge the oyles Turpentyne and Gummes dissolued in Veneger. Then put to the rottes and fygges beyng well bruised and well boyled together. And myxe all these together and make an emplaster according to arte.

It doth mollifie all hardnes of the stomacke liuer splene and other intrayles. It doeth also ceasse vehement dolour and payne. And healeth flatulentnes of Hypochondria. &c.

Dia Meliloton Andromachi ex Galeno.

Rec. Nardi gallicæ,
Cyperi
Iridis,
Myrrhæ, } ana, eyghte dragmes.

Croci, foure dragmes.
Meliloti, fyue and twenty dragmes.
Hammoniaci
Terebinthinæ, } ana, one dragme,

Ceræ one hundred dragmes,
Olei Cyprini, syxe vnces.
Aceti,q,s,
Fiat emplastrum.

Thys emplaster is of lyke vertue wyth that which is next before discribed.&c.

Emplastrum ex fermento Democriti ex Mesuę,

Rec Mellis
Fermenti, } ana one pounde,
Visci quercini, foure vnces,

Hammo-

Hāmoniaci in aqua fœnigręci, ant lacte
mori arboris, three vnces,
Fęcis olei veteris, q,ſ,
Fiat Emplaſtrum,

This emplaſter is of greate vertue in drawing out thornes and thynges fyred in any place. Alſo in taking oute the bones broken of Cranium fractured yea although they befyred in Dura and Pia mater.

Aliud Simile.

Rec. Fermenti,
Mellis,
Olei Communis } ana i. dragme.
Lactis muliebris
Vitelli ouorum
Fiat Emplaſtrum,

It doth digeſt and maturate inflammations and breaketh apoſtemes. And yf to thys recepte you adde Bdellium & Farina hordei it draweth oute thornes fyred: yea and ſo muche the better yf you put to it of Galbanum diſſolued in Veneygre. &c.

Dia Chalciteos Galeni, palmeum vnguentum dictum.

Rec. Axungiæ porci veteris a membranis per Liquationem et Colationem purgatæ, two pounde.
Olei veteris, } ana three
Lithargyri triti } pounde.
Chalcitidis vstę foure vnces.

Boyle all on the fyre and sturre them wyth a stycke new taken of the date tree (you maie in the place hereof vse a sprigge of the Oke) and when as it is well neare boyled adde thereto of the tender croppes of the Date tree newe gathered and cutte small foure vnces (you may in the place hereof vse the yonge buddes and twygges of the Oke) boyle all these vnto the thyckenes of a Cerote.

Thys is ryght good agaynst grene wounds, pestilentiall tumours, apostemes, burnynges, ruptures, contusions, and ecchymomata. &c.

Dia chilon Mesuæ primæ discriptionis.

Rec.

Rec. Mucaginis, { Seminis fœnogręci, Seminis lini, Radicū altheæ, } ana. j. vnce.

Lithargyri, one vnce, and a halfe.
Olei antiqui clari, thre vnces.

The Lytharge muste be made in moste fyne pouder and tempered with the Dyle. Then boyle them on a softe fyer, styrrynge them alwayes with a styse vntyll they bee well bodyed and incorporate together. Then put to your mucilages, and boyle them agayne vnto a sufficient thicknes.

It is good agaynst seyrhous of the Lyuer, Splene, Stomacke, and other partes, it mollifieth all hardneste. &c.

Alij addunt pulueris iridis, Mucaginis Meliloti, } ana. j. vnce.

Then it doeth moore behementlye resolue and maturate, and is a greater ceaser of dolour and payne.

Alij Olei veteris loco accipiunt.

Olei chamæmelini,
Olei irini, } ana.j.vnce,& half.

Prestantius quoque fit,
Addes etiam si voles.

Galbani,
Hammoniaci } ana.partes æquas.
Sagapeni,

Diachylon gummatum vulgus appellat.

Emplastrum Diachylon magnum Mesuæ.

Rec. Lithargyri, one pounde.

Olei Chamęmelini,
Trini,
Anathini, } ana. viij. vnce.

Mucaginis Seminis leni,
Fœnigręci
Altheæ,
Ficū pinguiū,
Vuarū passarū } ana.dragmes, xij.se.

Succi,

Succi, Iridis, Scillæ, Oesypi, Ichthyocollę } ana. dragmes xij. sc.
Terebinthinæ thre vnces.
Resini pini, Ceræ flauæ, } ana. ij. vnce.
Fiat ceratum vt prius.

It doeth digest and molifie all hardnesse, and therefore maye wyth great profite be applyed vnto schirrhous, and all other inflammations and tumours. &c.

Emplastrum Diachilon paruum Mesuę.

Rec. Lithargyri, vi. vnces.
Olei veteris, one pounde.
Mucaginis Psyllij, iiij. vnces
Mucaginis Seminis Hiosoyami. j. vnce halfe,
Muca-ginis, Seminis lini, Radicum altheę } ana ij. vnce.
Fiat vt primum,

It doeth digest and maturate tumours and apostemes which be whote. &c.

Emplastrum ex allijs Aetij.

Rec. Ceræ,		twvo pounde.
Picis Grecæ,	}	ana.vj.vnce.
Medullæ ceruinæ,	}	
Nitri albi,		viij,vnces,
Olei,		foure pounde.
Allia, num.xx,		

The Garlyke beynge pylled, boyle in Oyle. Then strayne them, and adde to it Mare, then Nitrum, and make Emplaster accordyng to arte.

It is of vertue agaynst all hardenesse, apostemes, selons, bubones, fistulas, impetigines humidas, and hardenesse of the pappes.

Emplastrum ad vulnera recentia.

Called in the Enchiridion, the greene wounde plaster.

Rec.

Rec. Resinæ, è Pino, } ana. ii, pounde
Ceræ virgineç }
Resinæ, } ana. xij. vnces
Seui ceruiui, }
Colophonij, viii. vnce
Sarcocollç, iij. vnce
Terebinthinç, half a pounde.
Mastiches, } ana. iiij. vnce.
Olibani, }
Dragacanthi, } ana. j. vnce. & half.
Gummi arabici, }
Galbani, }
Ammoniaci, }
Storacis calamitç, ij. vnce.
Storacis liquidç, iiij. vnce.

Succorum

Succorum Pyrolę vtriuſq3
Saracenicæ,
Diareuſiæ,
Veronicę,
Soliſeſſequij,
Conſolidę minoris,
Arthemiſiæ,
Plātaginis vtriuſq3
Betonicæ,
Agrimoniæ,
Matriſsiluæ,
Cerefolij,
Saluiæ,
Verbenæ,
Piloſillæ,
} ana three pounde

Boyle the iuſes of theſe herbes, with the Mare Roſine Colophonium and heartes ſuet on a ſofte fyer, with coles vntyll two partes bee conſumed. Then put to it Turpentyne, and the gummes beynge diſſolued in Vineger of Roſes and let them boyle a ſpace. Then put to it Storax liquida, and Calamita, and yf you wyll haue it ſweete ſmellynge you ſhall adde moſchi ii. ſcruples. Strayn theſe through a cloth and let it ſtande a nyghte, and the nexte daye

make

make it in rolles with Oyle of Roses. But if you wyll haue the Plaster greener, put to it Succi solatri, Sambuci, chelidonij, ana. iij. poũd. And boyle your Plaster agayne therewyth, but not longe.

This is an excellent Plaster in all greens and freshe woundes. For it doeth mundifie incarnate and consolidate without maner of tentes, it is of meruelous vertues, and therefore had in these dayes in more frequent vse. There bee diuers compositions; But in my opinion this is the best.

Emplastrum Iudæicum, called the Iewes Plaster.

Rec. Ceræ albæ, foure pounde.
Resinæ de Pino,
Resinæ Terebinthinæ } ana. ij. poũde.
Olei rosati, one pounde,
Mastiches,
Olibani } ana. two vnce.
Myrrhæ,

Rosarum.

Rosarum recentium,	iiij. vnce.
Vini rubei,	iii. pounde.
Succorum pirolę,	ana. quantū sufficit.
Diapensię,	
Matrisiluę,	
Saracenicę,	
Herbæ tunici,	
Solisiesquij,	
Bethonicę,	
Consolidæ minoris	
Fumariæ,	
plantaginis vtriusq3	
Valerianæ,	

Brouse the herbes, and take of the iuses, and put to the Wyne: and boyle them on the fyer a good space. Then strayne them, and put to it so strayned, Ware, Turpentyne, Rosen and Dyle. Then sethe the Roses: after strayne these, and put them in a kettle, and seethe them fyue or sire houres. Then take it from the fyer, and let it be colde. The nexte daye folowynge melte it agayne, and adde to it Mastick, Frankensence, and Myrhe, and suffer it a lytle to boyle together. After let it coole, and make it in rolles.

This Emplaster hath the lyke vertues that the

the other goyng before. For it doeth mundifie, incarnate and consolidate all greene and freshe woundes, and healeth them wythout tentes.

Emplastrum attractiuum Brunsvvicensis.

Rec.	Apostolicon Nicolai,	tvvo vnce.
	Magnetis orientalis,	half an vnce.
	Pinguidinis leporinæ,	ana. halfe an vnce.
	Olei canabis,	

Melte the Oyle and the Hares grease together: and then put to it, the percelles aboue sayde, and make thereof an Emplaster accordyng to arte.

This Emplaster is muche praysed in drawynge oute anye iron fired in woundes, as arrowe heades, mayle, shotte, or such lyke.

Emplastrum gratia dei vocatum.

Rec.	Terebinthinę,	halfe a pound.
	Resinę,	one pound.

Ceræ albæ,	foure vnces.
Mastiches	fyue vnces.
Betonicæ Verbanæ Pimpenellę,	ana, M.j.

Stampe your herbes in a morter, and put them into a quart of white wine, & boile it well to the.iij.part be consumed, and that it haue taking the strenght of the herbes, then put in your ware, Rosen, and Masticke, into the iuyse and wine, & let them boile on the fire vntyl the licour be consumed euer styrryng, and then take it of the fyer, and put in the Turpentine, and boyle it, till it come to the forme of a plaster euermore styrryng it well.

This plaster is good for woundes that is cut or broused, and for broking bones, and ioyntes that hath bene out, and for ache and payne that commeth of colde.

Emplastrum de Minio.

Rec. Olei rosacei, one pound and a halfe.

Vnguenti populei, Olei myrtyllorum	ana, foure vnces.

Pingued.

Pingued. Caponis tvvo vnces.
Sepi vitulini, } ana, halfe a
Vaccini, } pounde.
Axungię, seuen vnces.
Lithargyri auri } ana, three vnces
Argenti, } and a halfe.
Minij, }
Ceruſæ } ana foure vnces.
Terebinthinę, }
Cerę that is ſufficient.

Let all theſe be boyled together, tyll it be blacke, and make thereof a plaſter accordyng to art. This plaſter is good for old ſores, & is the experiment of Ioannes de Vigo,

Emplaſtrum Triapharmacum.

Rec. Olei communis, foure pounde.
Lithargyri auri, tvvo pounde.
Aceti fortiſsi. halfe a pounde,

Make hereof a plaſter accordynge to arte, Emplaſtrum triapharmacum. Is good to make fleſhe growe in woundes and to conſolidate and heale them.

The makyng of the white mucylage plaster called the Diachilon paruum.

Take fyrste your Marche malowe rotes and washe them, and picke them very cleane, then slyse them and take forth the pythe and caste it awaye, and cut the other in small peeces, then stampe them in a morter, and put two pounde of that same you haue stamped into a newe earthen potte, wyth foure vnces of Lyneseede and foure vnces of Fenegreke sede in grose pouder: then put vnto them, one quarte of whyte wine and one quart of water, and sturre it well together, and let the water be boiling hote. Then let it stande foure or fyue dayes, tyll it come to perfite mucylage, euery day sturring it, then strayne it and so you haue your mucylage.

Then take Litarge of leide in fyne pouder searsed through a fine cloth. vi. pound, cõmon oyle foure quartes. Then boile oile and the Litarge vpon a soft fire tyll it fall to a plaster, and then take a pynte of your mucylage, and put it in by litle and litle, least it runne ouer the pan, & alwaies sturre it, so doyng tyll you haue put in one quart of your mucylage, and so styrre it a litle space after tyll it begyn to ware colde, then putte in the resse of your muucylage, when you perceiue it wyll not runne ouer the pan, &

so

so continuallye labour and worke it, tyll it be verye whyte, then make it vp in roules and kepe it to your vse.

Emplastrum mucilagineum ad Resoluendum humores in tibijs.

Thys plaster was deuised for king Henrie the eyghte to amende the swellyng in his legges.

TAke the rotes of Marche malowes washe & picke them cleane, then slitte thē and take oute the inner pithe and caste it away, and take the vpper fayre whyte parte and cut them in smalle peeces, and brouse them in a morter and thereof take one pounde and putte them in a newe earthen pote and adde therto of lyneseede and Fenegreke ana. two vnces a litle brosed in a morter, then put thereto malmsie and whyte wyne ana. a pynte, and sturre altogether and lette them stande infused, two or three dayes, then set them ouer a soft fire and sturre it well tyll it ware thycke and slimme, then take it of and straine it through a newe canues clothe, and thus haue you your mucylage readye and then to make your plaster. Take fyne Oyle of Roses a quarte and washe it well

with whyte wyne and rose water. Then take the oyle cleane from the water and wyne, & set it ouer the fire in a brase pan alwaies sturringe it and put thereto the pouder of.

Lythargyri auri } ana, viij. vnces,
Lythargyri argenti, }
Cerusæ, vi. vnces,
Corallo. rub. ij. vnces,
Boli armoniaci } ana one vnce.
Sangui. draconis, }

And in anye wyse make them in fyne pouder searsid, then put them into the oyle ouer the fire alwaies styrring, and let not the fier be to bigge for burning of the stuffe, and when it beginneth to ware thicke, then put in of the sayd mucylage x. vnces by litle and little at ones, or els it wyll boile ouer the pan, and when it is boiled enough ye shall perceyue by the hardnes or softnes therof, if thou drope a lytle of it on a dishe botome or cold stone then take it from the fyre, and whē it is nere cold, make it in roules and lape them in parchment, and kepe them to your vse.

Emplastrum pro Chamęleontiasi nostræ inuentionis.

Rec.

Rec. Axungiæ, tvvo pounde.
Aquarum roſarum, } ana, iiij. vnces.
Plantaginis, }

Waſh it wel vntil the waters be conſumed in to the ſayd greaſe, then let it ſtande the ſpace of xiiii. daies, then put it in a pan ouer the fyre and adde to it.

Olei roſarum, one pounde,
Minij, tvvo pounde,
Aceti optimi, one pynte.

Let the barkes of Elme remaine in the vineger iiii. dayes infuſed, make hereof a plaſter accordyng to art. This is a good plaſter for ſcabes for byles & for ſore legges and many other thynges, for it molifieth & healeth gentlye and taketh awaye payne. Thys plaſter I dyd vſe much in yl ſcabes of Chamęliontiaſi, after they were mundifyed wyth marcurye præcipitate: And alſo in ſwellyng of ioyntes & in the goute and wyth thys plaſter I dyd great cures after the body was wel purged, & if thou would haue it to heale an olde ſore, thou muſt put in a lytle coperous in pouder in to the veneger. And ſo boyle it accordyng to arte.

Emplastrum Ceruſæ.

Rec. Olei roſati, tvvo pounde.
Axungiæ lotę in aqua roſacia & vino, one pounde.
Ceruſæ pulueriſatę, foure pound
Ceræ albæ, viij. vnce.

Melte your Ware wyth your Oyle and Hogges greaſe, then put in your Ceruſe in fyne pouder by lytle and lytle, euer ſtyrringe it for burnynge to the bottome, vntyll it come to the forme of a Plaſter, the whyche you maye knowe by droppynge ſome of it vppon a ſtone, or a diſhe bottome, vntyll you haue it accordynge to your mynde. Thys Plaſter is good for ſcabbes in an euyll whote complexion, for it doeth quickely drye them, and ſkynne them. If you waſhe it wyth whyte Wyne, it wyll be muche the better.

Emplaſtrum Caliſienſæ.

Rec.

Rec. Olei rosati, j.pounde,iiij. vnce.
Ceræ albæ, j.pounde,
Ceruſæ Venetæ pul. j.pounde.

Boyle all theſe vppon a ſofte fyer, euermore ſyringe it tyll it come to the forme a Plaſter, and than take it from the fyer, and in the coolynge putte in of Campher, two dragmes in fyne pouder, and make it vp in rolles.

Thys Plaſter is good to cicatrice vlcerations, after they bee well mundified and incarned. It is good to drye vp ſcabbes, when the bodye is well purged before.

Emplaſtrum de ſpecibus, for ache and payne in the ſhulders, armes, or ſome other places of the bodye.

Rec. Reſinæ,
Pereſinæ, } ana.j.pounde.
Ceræ albæ,
Colophonij, viij.vnce.
Vini rubei, ii.pounde.

Caryophillorum, Maceris,	ana. one vnce.
Olibani,	iiij. vnce.
Mastiches,	ij. vnce.
Myrrhæ,	j. vnce.
Croci,	halfe an vnce.

Make those in fyne pouder that are to bee made in pouder, and boyle your Rosyne, Pitrosyn and Mare, with foure vnce of deare suet, and strayne it thorowe a Canuas clothe. Then set it on the fyer agayne vntyll it boyle, and when it boyleth, take it from the fyer, and put in your pouders and styre it, vntyll it bee colde: and in the coolynge, put in the redde Myne, and labour it together, and make it vp in Rolles. And yf you adde vnto thys, one vnce of the leaues of Rewe dryed & made in fyne pouder, and fullye searsed, it is then good for Sciaticus, & other colde sickennesses of the ioyntes, yf the bodye bee well purged before with Pylles of Hermodactolior, or other purgations meete for the same purpose. &c.

Emplastrum Ianuacense.

Rec. Succi plantaginis
Betonicę,
Apij, } ana. j. pounde.
Picis,
Perrosinæ, } ana. j. pounde.
Ceræ, ij. pounde.
Terebinthinę, foure vnce.
Rorismarinę pulueriſatæ, twvo vnce.

Melte your Pitche, Rosyne, Ware, and Turpentyne together with,

Olei Ienuperæ, twvo vnce.

Then put in your pouder of Rosemary leaues styrring it verye well, then put in your tuse by lytle and lytle, euer styrryng it continually vntyll it bee colde, and so make it vp in rolles, and kepe it to your vse.

Emplastrum nigrum Ioannis de Vigo & D. Buttes, for blistering, burninge, ache, and excoriation, comming of whote humours, and for all whote vlcerations.

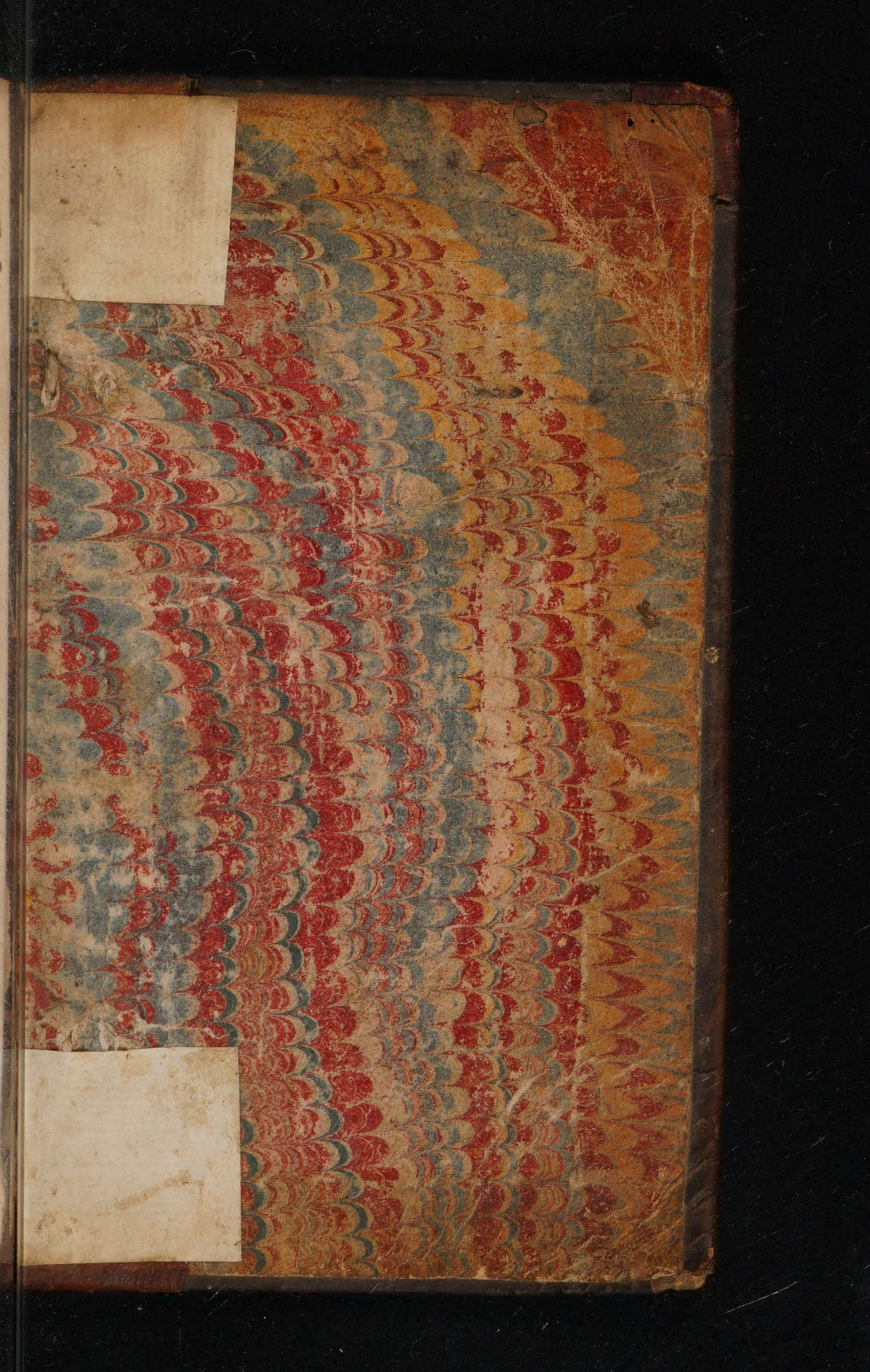
Take

Take vnslecked Lime, and quench it in water seuen tymes, and in whyte wyne two times then take of that pouder, one vnce and a halfe.

Ceruſæ, one vnce.
Tutiæ, one dragme.
Olei roſati one pynte.
Sepi vitulini foure vnces.
Succi plantaginis
Solatri,
Lactucę
Centumnodij } ana, two vnces.

Bole all these iuyces with the Oyle and the suiet on a softe fyre, tyll the iuyce be consumed then putte thereto.

Vnguenti roſarum, one vnce.
Ceræ albæ one vnce.

And boyle them agayn euer sturryng it with a slater then put thereto your mencralls finely poudred and searched, and when it is sufficiently boyled, take it from the fyre, and when it is colde put it in a morter of brasse and labor it wel, then put it in a bore, and thereof make your plaster on a linnen clothe.

Emplastrum